3.6 Traffic and Transportation/Pedestrian and Bicycle Facilities

The information in this section is based on the *Traffic Technical Report* (2012). The Riverside County Traffic Analysis Model (RIVTAM) (with refinements to reflect local conditions) was used to forecast future traffic conditions.

3.6.1 Regulatory Setting

The Federal Highway Administration (FHWA) directs that full consideration should be given to the safe accommodation of pedestrians and bicyclists during the development of federal-aid highway projects (see 23 Code of Federal Regulations [CFR] 652). It further directs that the special needs of the elderly and the disabled must be considered in all federal-aid projects that include pedestrian facilities. When current or anticipated pedestrian and/or bicycle traffic presents a potential conflict with motor vehicle traffic, every effort must be made to minimize the detrimental effects on all highway users who share the facility.

In July 1999, the U.S. Department of Transportation (USDOT) issued an Accessibility Policy Statement pledging a fully accessible multimodal transportation system. Accessibility in federally assisted programs is governed by the USDOT regulations (49 CFR part 27) implementing Section 504 of the Rehabilitation Act (29 United States Code [USC] 794). FHWA has enacted regulations for the implementation of the 1990 Americans with Disabilities Act (ADA), including a commitment to build transportation facilities that provide equal access for all persons. These regulations require application of the ADA requirements to Federal-aid projects, including Transportation Enhancement Activities.

3.6.2 Affected Environment

For the traffic analysis, the MCP study area includes a corridor from the city of Corona at Interstate 15 (I-15) in the west to the city of San Jacinto at State Route 79 (SR-79) in the east. The MCP traffic study area is larger than the MCP study area shown in Figure 1.1 to ensure that the effects on the regional transportation system were evaluated.

The quality and density of traffic flow in the MCP study area can be defined in terms of levels of service (LOS) from A to F. LOS describes the efficiency of traffic flow, how such conditions are perceived by those persons traveling in the traffic stream, and accounts for variables such as speed and travel time, freedom to maneuver, traffic

interruptions, traveler comfort and convenience, and safety. LOS A indicates free traffic flow with low volumes and high speeds resulting in low densities, while LOS F indicates traffic volumes that exceed capacity and result in forced flow operations at low speeds, resulting in high densities. According to the *2000 Highway Capacity Manual* (HCM), LOS is categorized by two traffic parameters: uninterrupted and interrupted traffic flow. Uninterrupted flow facilities (e.g., freeways) do not have fixed elements, such as traffic signals, that cause interruptions in traffic flow. Interrupted flow facilities (e.g., arterial roadways) have fixed elements that cause interruptions in the flow of traffic, such as stop signs and signalized intersections. LOS for freeway facilities are defined and illustrated in Figure 3.6.1. LOS for signalized intersections is defined based on delay per vehicle as shown in Figure 3.6.2.

The traffic impact analysis is based on the Riverside County Congestion Management Program (CMP),[1] which includes a designation of LOS E or better as the target for traffic operations with LOS F indicating the need for improvements. Therefore, whenever traffic operations of LOS E or better are expected with the project, the project is not considered to have a traffic impact. The intent of the Congestion Management Program is to more directly link land use, transportation, and air quality, thereby prompting reasonable growth management programs that will effectively utilize new transportation funds, alleviate traffic congestion and related impacts, and improve air quality. The MCP project is directly related to the intent of the CMP in that implementation of the project will help alleviate traffic congestion and related impacts on parallel roadways.

In addition to relieving traffic congestion on parallel roadways, the project is expected to increase traffic on certain other roadways. Where traffic increases are expected to occur, detailed analysis has been conducted to ensure that the project either meets the CMP's minimum Level of Service threshold (i.e., Level of Service [LOS] E) or results in a traffic increase that is minimal. Thus, the project is not considered to have an impact if the level of service with the project is LOS F, but the project is expected to improve traffic operations if the volume of traffic added by the project is minimal. Minimal is defined by the thresholds used to determine whether a project traffic increase is substantial when both the No Build and Build traffic

[1] http://www.rctc.org/uploads/media_items/congestionmanagementprogram.original.pdf.

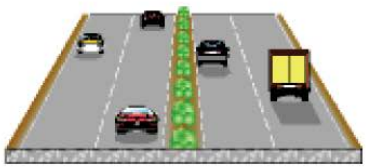
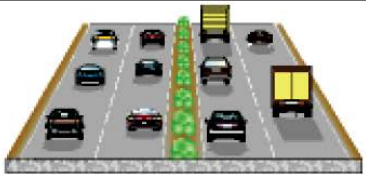
Level of Service	Flow Conditions	Operating Speed (mph)	Technical Descriptions
A		70	Highest quality of service. Traffic flows freely with little or no restrictions on speed or maneuverability. **No delays**
B		70	Traffic is stable and flows freely. The ability to maneuver in traffic is only slightly restricted. **No delays**
C		67	Few restrictions on speed. Freedom to maneuver is restricted. Drivers must be more careful making lane changes. **Minimal delays**
D		62	Speeds decline slightly and density increases. Freedom to maneuver is noticeably limited. **Minimal delays**
E		53	Vehicles are closely spaced, with little room to maneuver. Driver comfort is poor. **Significant delays**
F		<53	Very congested traffic with traffic jams, especially in areas where vehicles have to merge. **Considerable delays**

FIGURE 3.6.1

SOURCE: www.dot.ca.gov/SER/forms.htm

LOS for Freeway Facilities

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34/3
EA 08-0F3200 (PN 0800000125)

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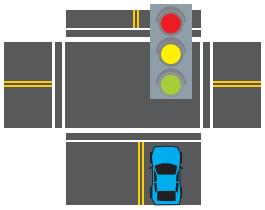
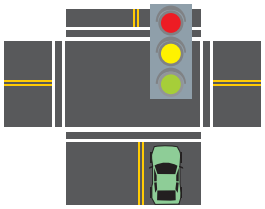
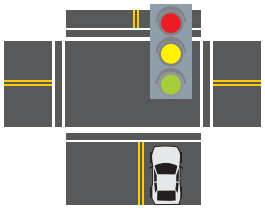
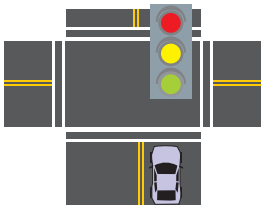
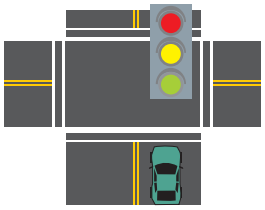
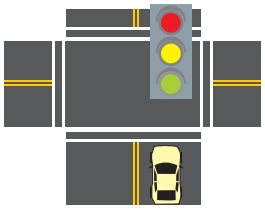
Level of Service	Delay per Vehicle (seconds)
A	 ≤10
B	 11-20
C	 21-35
D	 36-55
E	 56-80
F	 >80

Factors Affecting LOS of Signalized Intersections

Traffic Signal Conditions:
- Signal Coordination
- Cycle Length
- Protected left turn
- Timing
- Pre-timed or traffic activated signal

Geometric Conditions:
- Left- and right-turn lanes
- Number of lanes

Traffic Conditions:
- Percent of truck traffic
- Number of pedestrians

FIGURE 3.6.2

SOURCE: www.dot.ca.gov/SER/forms.htm

LOS for Signalized Intersections

08-RIV-MCP PM 0.0/16.3; 08-RIV-215 PM 28.0/34/3
EA 08-0F3200 (PN 0800000125)

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operations are at LOS F. The analysis uses the County of Riverside's (County) CMP LOS standard plus the thresholds that have been defined for this project as discussed in detail below.

The traffic analysis study area is made up of intersections and freeway facilities. Freeway facilities include basic freeway segments, ramp merge areas, ramp diverge areas, and weaving sections. Different impact threshold criteria have been defined for intersections and freeway facilities, as described below.

For intersections, the project's traffic contribution would be considered to have an impact if all of the following are true:

- LOS F traffic conditions are expected with the project.
- The traffic increase caused by the project is 2 percent or more of the traffic entering the intersection in the a.m. or p.m. peak hours.
- The traffic increase caused by the project is 2 percent or more of the traffic entering the intersection based on Average Daily Traffic (ADT) conditions.

For freeway facilities, the project's traffic would be considered to have an impact if all of the following are true:

- LOS F traffic conditions are expected with the project.
- The expected density (expressed in terms of passenger cars per hour per lane) is higher with the project than without the project.
- The project would be expected to cause an increase of 723 vehicles per hour or more. (This is one third of the typical capacity of one freeway lane.)

3.6.2.1 Baseline Traffic Conditions

Baseline traffic conditions for existing year (2010),[1] Opening Year (2020), and Horizon Year (2040) were analyzed to determine traffic LOS and density without the MCP project. The following assumptions were made when calculating 2020 and 2040 traffic without the MCP project.

[1] As referenced earlier in this report, the supplemental Notice of Preparation (NOP) for the project was published in 2007, and existing traffic counts were obtained in year 2010 for the analysis of existing conditions. Thus, year 2010 provided the most accurate database of existing data and was selected as the analysis year for existing traffic conditions.

Opening Year (2020):

- Freeways and state highways improvements in the Southern California Association of Governments (SCAG) 2008 Regional Transportation Plan (RTP) scheduled to occur prior to 2020 were assumed to be in place.
- Local roadway improvements listed in City/County 5-year capital improvement programs were assumed to be in place.
- Additional roadway improvements were assumed to be in place if the responsible agencies have secure funding sources and reasonable assurances that the improvement would be in place by 2020.

Horizon Year (2040):

- Freeways and state highways were assumed to be improved according to the SCAG 2008 RTP. The assumptions included all SCAG 2008 RTP Amendments through Amendment 4 approved on November 4, 2010.
- Local roadways were assumed to be built out according to the Circulation Elements of the General Plans of the appropriate local jurisdictions (Riverside County and the cities of Perris and San Jacinto).

Existing (2010), Opening Year (2020), and Horizon Year (2040) baseline conditions for each freeway mainline, freeway interchange, and local intersection applicable in the MCP study area are described below.

State Highways

Interstate 15

In the MCP traffic study area, I-15 is currently a six-lane freeway from Magnolia Avenue south to Temescal Canyon Road with interchanges at: Ontario Avenue, El Cerrito Road, Cajalco Road, Weirick Road, and Temescal Canyon Road. In the existing condition, the ADT on I-15 between Temescal Canyon Road and State Route 91 (SR-91) ranges from 121,000 to 174,000 trips. In 2020, the forecasted ADT on I-15 between Temescal Canyon Road and SR-91 would range from 209,200 to 225,200 trips, and in 2040, the forecasted ADT on I-15 between Temescal Canyon Road and SR-91 would range from 251,600 to 288,000 trips.

Table 3.6.A lists the Existing (2010), Opening Year (2020), and Horizon Year (2040) a.m. and p.m. peak-hour traffic LOS and density (defined as vehicles per mile per lane [vpmpl]) for I-15 ramps and mainline lanes between Magnolia Avenue and Temescal Canyon Road. In general, the I-15 ramps and mainline lanes currently

Table 3.6.A Existing, 2020, and 2040 Freeway and Ramp Capacity Analysis: I-15

		Year 2010				Year 2020				Year 2040			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Analysis Type	LOS	Density[1]	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density
I-15 Mainline Northbound													
South of Temescal Canyon Road	Freeway	D	33.8	D	30.5	C	25.4	C	23.3	D	33.4	D	34.0
South of Temescal Canyon Road	HOV	-	-	-	-	C	24.3	C	22.3	C	25.0	C	23.2
Temescal Canyon Road off-ramp	Diverge	D	32.9	D	30.2	C	25.9	C	23.8	D	32.3	D	33.4
Temescal Canyon Road on-ramp	Merge	D	28.9	D	31.5	C	22.6	C	20.8	C	25.1	C	24.9
Temescal Canyon Road on-ramp to Weirick Road off-ramp	Freeway	D	29.4	D	33.1	D	27.5	C	25.0	E	36.4	E	35.5
Temescal Canyon Road on-ramp to Weirick Road off-ramp	HOV	-	-	-	-	C	24.3	C	22.3	C	25.0	C	23.2
Weirick Road off-ramp	Diverge	D	29.6	D	31.5	D	29.3	C	27.0	D	33.7	D	33.9
Weirick Road on-ramp	Merge	E	35.2	D	34.2	C	22.5	C	21.3	C	25.8	C	25.4
Weirick Road on-ramp to Cajalco Road off-ramp	Freeway	E	37.4	E	38.2	D	29.2	D	26.3	E	44.9	E	41.0
Weirick Road on-ramp to Cajalco Road off-ramp	HOV	-	-	-	-	C	24.3	C	22.3	C	25.0	C	23.2
Cajalco Road off-ramp	Diverge	D	33.2	D	33.7	D	31.6	D	29.1	**F**	45.0	**F**	45.0
Cajalco Road on-ramp	Merge	**F**	47.4	E	35.5	-	-	-	-	-	-	-	-
Cajalco Road eastbound on-ramp	Merge	-	-	-	-	C	22.3	C	20.9	C	26.8	C	25.3
Cajalco Road westbound on-ramp	Merge	-	-	-	-	C	23.5	C	22.1	**F**	49.3	C	26.3
Cajalco Road on-ramp to El Cerrito Road off-ramp	Freeway	**F**	47.4	E	41.6	D	30.3	D	27.2	F	49.3	**F**	45.4
Cajalco Road on-ramp to El Cerrito Road off-ramp	HOV	-	-	-	-	C	24.3	C	22.3	C	25.0	C	23.2
El Cerrito Road off-ramp	Diverge	**F**	50.2	D	34.5	D	31.5	D	28.5	**F**	49.3	**F**	45.4
El Cerrito Road on-ramp	Merge	**F**	49.6	D	35.0	C	23.5	C	22.3	**F**	47.3	C	27.3
El Cerrito Road on-ramp to Ontario Avenue off-ramp	Freeway	**F**	49.6	E	42.8	D	30.0	D	26.9	**F**	47.3	E	35.5
El Cerrito Road on-ramp to Ontario Avenue off-ramp	HOV	-	-	-	-	C	25.8	C	23.7	D	32.2	D	32.2
Ontario Avenue off-ramp	Diverge	**F**	56.3	E	35.1	D	33.0	D	30.3	**F**	47.3	E	36.3
Ontario Avenue on-ramp	Merge	**F**	49.3	**F**	47.6	C	22.5	C	21.3	**F**	48.1	C	24.4
Ontario Avenue on-ramp to Magnolia Avenue off-ramp	Freeway	**F**	49.3	**F**	47.6	D	28.6	D	25.9	**F**	48.1	E	37.3
Ontario Avenue on-ramp to Magnolia Avenue off-ramp	HOV	-	-	-	-	C	25.8	C	23.7	D	32.2	D	32.2
Magnolia Avenue off-ramp	Diverge	**F**	56.8	**F**	50.8	D	33.3	D	30.0	**F**	48.1	**F**	45.0
Magnolia Avenue on-ramp	Merge	**F**	48.0	**F**	55.1	-	-	-	-	-	-	-	-
Magnolia Avenue eastbound on-ramp	Merge	-	-	-	-	C	22.1	C	21.0	**F**	50.9	C	24.6
Magnolia Avenue westbound on-ramp	Merge	-	-	-	-	C	24.1	C	22.6	**F**	50.9	C	27.2
North of Magnolia Avenue to SR-91	Freeway	D	29.3	E	36.6	D	32.3	D	28.1	**F**	50.9	E	41.5
North of Magnolia Avenue to SR-91	HOV	-	-	-	-	C	25.8	C	23.7	D	32.2	D	32.2
I-15 Mainline Southbound													
SR-91 to Magnolia Avenue	Freeway	-	-	-	-	D	28.8	E	37.6	**F**	46.6	**F**	56.1
SR-91 to Magnolia Avenue	HOV	-	-	-	-	C	21.1	D	29.5	C	25.2	D	32.2
Magnolia Avenue off-ramp	Diverge	**F**	41.9	**F**	49.0	**F**	45.0	**F**	45.0	**F**	46.6	**F**	56.1
Magnolia Avenue on-ramp	Merge	E	35.2	**F**	44.7	B	19.5	C	23.7	C	24.2	**F**	45.0
Magnolia Avenue on-ramp to Ontario Avenue off-ramp	Freeway	E	42.9	**F**	53.2	C	22.8	D	34.0	D	34.8	**F**	54.1
Magnolia Avenue on-ramp to Ontario Avenue off-ramp	HOV	-	-	-	-	C	21.1	D	29.5	C	25.2	D	32.2
Ontario Avenue off-ramp	Diverge	E	36.2	**F**	47.6	C	25.2	D	34.6	**F**	45.0	**F**	54.1
Ontario Avenue on-ramp	Merge	D	31.5	**F**	42.3	B	20.0	C	24.4	C	23.3	**F**	56.7
Ontario Avenue on-ramp to El Cerrito Road off-ramp	Freeway	D	33.5	**F**	52.9	C	24.3	E	38.0	E	35.2	**F**	56.7
Ontario Avenue on-ramp to El Cerrito Road off-ramp	HOV	-	-	-	-	C	21.1	D	29.5	C	25.2	D	32.2
El Cerrito Road off-ramp	Diverge	D	31.9	**F**	49.4	C	26.2	E	36.1	D	34.5	**F**	56.7
El Cerrito Road on-ramp	Merge	D	31.1	**F**	45.4	C	20.3	C	25.8	C	25.1	**F**	55.5
El Cerrito Road on-ramp to Cajalco Road off-ramp	Freeway	D	33.3	**F**	53.4	C	23.9	E	36.8	E	35.4	**F**	55.5
El Cerrito Road on-ramp to Cajalco Road off-ramp	HOV	-	-	-	-	C	19.9	D	27.5	C	20.5	D	28.4
Cajalco Road off-ramp	Diverge	D	32.1	**F**	49.2	C	19.7	**F**	45.0	**F**	45.0	**F**	55.5
Cajalco Road on-ramp	Merge	D	29.4	**F**	46.1	B	23.2	C	24.5	C	23.5	**F**	45.0
Cajalco Road on-ramp to Weirick Road off-ramp	Freeway	D	30.7	**F**	52.3	C	26.4	D	35.0	D	32.7	**F**	50.6
Cajalco Road on-ramp to Weirick Road off-ramp	HOV	-	-	-	-	C	19.9	D	27.5	C	20.5	D	28.4
Weirick Road off-ramp	Diverge	D	30.8	**F**	47.3	C	26.4	E	36.4	D	34.8	**F**	45.0
Weirick Road on-ramp	Merge	C	26.9	**F**	46.3	B	19.2	C	24.1	C	23.4	**F**	45.0
Weirick Road on-ramp to Temescal Canyon Road off-ramp	Freeway	D	27.7	**F**	48.4	C	22.1	D	32.3	D	29.5	**F**	46.1
Weirick Road on-ramp to Temescal Canyon Road off-ramp	HOV	-	-	-	-	C	19.9	D	27.5	C	20.5	D	28.4

Table 3.6.A Existing, 2020, and 2040 Freeway and Ramp Capacity Analysis: I-15

		Year 2010				Year 2020				Year 2040			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	Analysis Type	LOS	Density[1]	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density
Temescal Canyon Road off-ramp	Diverge	D	28.8	**F**	45.4	C	24.4	D	33.6	D	31.2	**F**	45.0
Temescal Canyon Road on-ramp	Merge	C	26.0	**F**	43.7	B	18.3	C	23.7	C	22.9	C	27.6
South of Temescal Canyon Road	Freeway	D	26.4	**F**	47.1	C	20.7	D	29.4	D	28.6	E	42.2
South of Temescal Canyon Road	HOV	-	-	-	-	C	19.9	D	27.5	C	20.5	D	28.4

Source: *Traffic Technical Report* (2012).
[1] Density is expressed in passenger cars/miles/lane.
Note: **Bold** represents a deficient (LOS F) ramp or freeway segment.
HOV = high-occupancy vehicle
I-15 = Interstate 15
LOS = Level of Service
SR-91 = State Route 91
- = Not Applicable

operate at LOS E or F during the a.m. peak hour. In the southbound direction during the p.m. peak hour, all freeway segments currently operate at LOS F. In 2020 and 2040, the addition of two mixed-flow and four high-occupancy toll lanes would result in improved LOS on I-15.

Table 3.6.B lists the a.m. and p.m. peak-hour LOS and average delay for Existing (2010), Opening Year (2020), and Horizon Year (2040) conditions for I-15 ramp intersections with arterials and other streets and intersections near the freeway ramps. In 2010, three intersections operated worse than LOS D during a.m. peak hours and two intersections during p.m. peak hours. In 2020, two intersections will be operating worse than LOS D during a.m. and p.m. peak hours. In 2040, three intersections will be operating worse than LOS D during a.m. peak hours and five intersections during p.m. peak hours.

Interstate 215

In the MCP traffic study area, Interstate 215 (I-215) is currently a six-lane freeway from Van Buren Boulevard to Nuevo Road with interchanges at Alessandro Boulevard, Cactus Avenue, Van Buren Boulevard, Harley Knox Boulevard, Ramona Expressway, and Nuevo Road. In the existing condition, the ADT on I-215 from just south of Nuevo Road to Alessandro Boulevard ranges from 99,000 to 124,000 trips.

In Opening Year (2020), the ADT on I-215 from just south of Nuevo Road to Alessandro Boulevard ranges from 154,000 to 172,200 trips, and in Horizon Year (2040), the ADT on I-215 from just south of Nuevo Road to Van Buren Boulevard is projected to range from 143,200 to 160,600 trips.

Table 3.6.C lists the Existing (2010), Opening Year (2020), and Horizon Year (2040) a.m. and p.m. peak-hour LOS and density for I-215 ramps and mainline lanes from Alessandro Boulevard to Nuevo Road.[1] Overall, the I-215 ramps and mainline lanes operated at LOS D or better during a.m. and p.m. peak hours in 2010 with the exception of the I-215 southbound freeway mainline, which operated at LOS E north of Cajalco Road during the p.m. peak hour. The LOS at the I-215 ramps and mainline lanes and are projected to degrade in 2020, and by 2040, most ramps and mainline lanes would operate at LOS E or F.

[1] As referenced in the beginning of this section, assumptions were made for other roadway improvements implemented by 2040 in the MCP study area. Therefore, for the 2040 conditions in Table 3.6.C, there is an additional on- and off-ramp at Placentia Avenue on I-215.

Table 3.6.B 2010, 2020, and 2040 Intersection Capacity Analysis: I-15 Area

Intersection	2010				2020				2040			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Magnolia Avenue and El Sobrante Road	D	45.1	D	54.7	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0
Magnolia Avenue and I-15 southbound ramps	**F**	>80.0	E	73.1	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0
Magnolia Avenue and I-15 northbound ramps	C	20.3	B	12.4	C	21.7	B	17.1	B	18	C	23.9
Magnolia Avenue and El Camino Avenue	B	13.3	B	14.7	B	14.3	C	23.4	C	20.1	E	70.6
Ontario Avenue and California Avenue	C	25.5	C	34.2	C	27.9	D	48.3	D	51	**F**	>80.0
Ontario Avenue and I-15 southbound ramps	C	23.4	B	18	B	10.8	B	15.2	C	23.4	B	15.2
Ontario Avenue and I-15 northbound ramps	D	36.2	C	28.1	C	31	C	28.7	C	29.3	C	33.3
Ontario Avenue and State Street	E	44.8	E	46.8	B	12.9	B	11	B	13	B	13.2
El Cerrito Road and Bedford Canyon Road	B	15.3	B	18.3	B	15.7	B	18.7	C	26.7	C	28
El Cerrito Road and I-15 southbound ramps	B	10.6	A	6.5	B	13.1	B	13.9	B	17.5	C	22.7
El Cerrito Road and I-15 northbound ramps	D	35.1	C	25.4	C	29.9	C	27.6	D	35.6	C	20.8
El Cerrito Road and Temescal Canyon Road	E	49.7	D	27.7	C	25.1	B	18.8	C	31.4	C	30.7
Cajalco Road and Bedford Canyon Road	A	7.1	B	13.2	B	17.1	C	26	C	20.1	C	31.1
Cajalco Road and I-15 southbound ramps	C	22.4	C	27.3	C	24	C	23.4	C	23.9	C	23.8
Cajalco Road and I-15 northbound ramps	B	17.5	B	15.6	B	12.1	B	11.6	B	10.5	B	14.8
Cajalco Road and Temescal Canyon Road	C	28.1	C	27.5	C	29.2	D	38	E	61.4	**F**	>80.0
Cajalco Road and Eagle Valley Road	B	13.2	B	12.6	-	-	-	-	-	-	-	-
Weirick Road and Knabe Road	B	10.4	B	13.2	C	28.3	C	28.4	D	39.5	C	31.1
Weirick Road and I-15 southbound ramps	B	12.5	B	15.1	C	21.5	C	23.3	C	22.6	B	16.2
Weirick Road and I-15 northbound ramps	B	16.3	B	17.2	B	10.7	A	9.8	A	9.4	B	11
Weirick Road and Temescal Canyon Road	B	12.4	B	11.8	C	23.7	C	27.4	C	22.2	C	29.3
Temescal Canyon Road and Lawson Drive	C	17.8	C	18	A	8.6	A	7.7	C	20.4	B	18.8
Temescal Canyon Road and I-15 southbound ramps	B	12.4	B	15.9	B	15.4	C	23.7	B	15.5	D	38.4
Temescal Canyon Road and I-15 northbound ramps	C	32.7	C	27.5	C	23.3	C	25.1	C	22.5	C	24.9

Source: *Traffic Technical Report* (2012).
Note: **Bold** represents a deficient (LOS F) intersection.
I-15 = Interstate 15
LOS = Level of Service
sec = second
> = greater than

Table 3.6.C Existing, 2020, and 2040 Freeway and Ramp Capacity Analysis: I-215

	Analysis Type	Year 2010				Year 2020				Year 2040			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Density[1]	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density
I-215 Mainline Northbound													
D Street on-ramp to Nuevo Road off-ramp	Weave (4)	C	26.4	C	26.8	D	31.7	D	29.3	E	36.1	D	34.9
Nuevo Road off-ramp	Diverge (5)	C	26.3	C	26.9	B	12.0	B	10.9	B	13.6	B	14.1
Nuevo Road on-ramp	Merge	C	27.2	C	26.1	**F**	47.0	D	34.9	**F**	56.1	**F**	51.6
Nuevo Road on-ramp to Cajalco/Ramona Expressway off-ramp	Freeway	C	25.7	C	25.2	**F**	47.0	E	40.1	E	41.4	D	33.6
Nuevo Road on-ramp to Cajalco/Ramona Expressway off-ramp	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
Cajalco/Ramona Expressway off-ramp	Diverge	C	27.7	C	27.3	**F**	47.0	D	32.8	D	34.9	D	32.8
Cajalco/Ramona Expressway on-ramp	Merge	D	32.2	D	29.2	**F**	51.8	**F**	45.7	**F**	49.4	E	36.9
Cajalco/Ramona Expressway on-ramp to Harley Knox Boulevard off-ramp	Freeway	D	30.3	D	27.4	**F**	51.8	**F**	45.7	**F**	49.4	E	39.5
Cajalco/Ramona Expressway on-ramp to Harley Knox Boulevard off-ramp	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
Harley Knox Boulevard off-ramp	Diverge	D	30.1	D	28.2	**F**	51.8	E	35.9	**F**	49.4	D	34.3
Harley Knox Boulevard on-ramp	Merge	D	30.6	D	28.3	**F**	52.8	**F**	47.8	**F**	52.5	**F**	47.4
Harley Knox Boulevard on-ramp to Van Buren Boulevard off-ramp	Freeway	D	32.1	D	28.7	**F**	52.8	**F**	47.8	**F**	52.5	**F**	47.4
Harley Knox Boulevard on-ramp to Van Buren Boulevard off-ramp	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
Van Buren Boulevard off-ramp	Diverge	-	-	-	-	**F**	52.8	**F**	47.8	**F**	52.5	**F**	47.4
Van Buren Boulevard on-ramp	Merge	D	30.7	D	30.8	-	-	-	-	-	-	-	-
Van Buren Boulevard eastbound on-ramp	Merge	-	-	-	-	**F**	52.0	**F**	47.6	**F**	50.2	E	36.6
Van Buren Boulevard westbound on-ramp	Merge	-	-	-	-	**F**	52.0	**F**	47.6	**F**	51.9	**F**	46.7
Van Buren Boulevard on-ramp to Cactus Avenue off-ramp	Freeway	D	30.7	D	30.4	**F**	52.0	**F**	47.6	**F**	51.9	**F**	46.7
Van Buren Boulevard on-ramp to Cactus Avenue off-ramp	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
Cactus Avenue off-ramp	Diverge	D	31.5	D	30.7	**F**	52.0	**F**	47.6	**F**	51.9	**F**	46.7
Cactus Avenue on-ramp	Merge	D	30.4	D	32.9	-	-	-	-	-	-	-	-
Cactus Avenue eastbound on-ramp	Merge	-	-	-	-	**F**	48.9	E	35.1	**F**	47.7	D	34.0
Cactus Avenue westbound on-ramp	Merge	-	-	-	-	**F**	48.9	**F**	47.4	**F**	50.9	E	36.6
Cactus Avenue on-ramp to Alessandro Boulevard off-ramp	Freeway	D	29.6	D	33.4	**F**	48.9	**F**	47.4	**F**	50.9	**F**	45.8
Cactus Avenue on-ramp to Alessandro Boulevard off-ramp	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
Alessandro Boulevard off-ramp	Diverge	D	30.9	D	32.2	**F**	48.9	**F**	47.4	**F**	50.9	E	36.8
Alessandro Boulevard on-ramp	Merge	C	26.5	D	33.1	**F**	46.6	E	37.4	**F**	48.9	E	36.2
North of Alessandro Boulevard	Freeway	D	26.1	D	34.9	**F**	46.6	**F**	45.9	**F**	48.9	E	42.4
North of Alessandro Boulevard	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
I-215 Mainline Southbound													
North of Alessandro Boulevard	Freeway	D	29.5	E	40.0	E	39.3	**F**	55.8	D	31.8	**F**	56.5
North of Alessandro Boulevard	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
Alessandro Boulevard off-ramp	Diverge	D	30.1	D	34.7	D	34.4	**F**	55.8	D	31.7	**F**	56.5
Alessandro Boulevard on-ramp	Merge	D	28.6	E	35.3	-	-	-	-	-	-	-	-
Alessandro Boulevard westbound on-ramp	Merge	-	-	-	-	D	31.8	**F**	57.2	D	28.2	**F**	54.1
Alessandro Boulevard eastbound on-ramp	Merge	-	-	-	-	D	35.0	**F**	57.2	D	32.6	**F**	58.8
Alessandro Boulevard on-ramp to Cactus Avenue off-ramp	Freeway	D	28.8	E	40.2	E	40.9	**F**	57.2	D	34.0	**F**	58.8
Alessandro Boulevard on-ramp to Cactus Avenue off-ramp	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
Cactus Avenue Off-ramp	Diverge	D	30.0	D	34.9	-	-	-	-	-	-	-	-
Cactus Avenue westbound off-ramp	Diverge	-	-	-	-	D	34.5	**F**	57.2	D	32.3	**F**	58.8
Cactus Avenue eastbound off-ramp	Diverge	-	-	-	-	D	33.0	**F**	57.2	D	30.3	**F**	55.4
Cactus Avenue on-ramp	Merge	C	27.4	D	34.8	E	36.5	**F**	58.8	D	33.7	**F**	59.9
Cactus Avenue on-ramp to Van Buren Boulevard off-ramp	Freeway	D	27.1	E	38.7	E	43.5	**F**	58.8	E	35.2	**F**	59.9
Cactus Avenue on-ramp to Van Buren Boulevard off-ramp	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
Van Buren Boulevard off-ramp	Diverge	D	29.2	D	34.3	E	35.5	**F**	58.8	D	33.2	**F**	59.9
Van Buren Boulevard on-ramp	Merge	C	26.2	E	35.2	E	36.0	**F**	59.5	D	34.0	**F**	60.7
Van Buren Boulevard on-ramp to Harley Knox Boulevard off-ramp	Freeway	C	25.1	E	39.6	E	36.1	**F**	59.5	E	36.1	**F**	60.7
Van Buren Boulevard on-ramp to Harley Knox Boulevard off-ramp	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
Harley Knox Boulevard off-ramp	Diverge	C	26.8	D	34.2	E	35.5	**F**	59.5	D	33.9	**F**	60.7
Harley Knox Boulevard on-ramp	Merge	C	24.1	D	31.8	D	33.3	**F**	58.2	D	30.6	**F**	57.1
Harley Knox Boulevard on-ramp to Cajalco/Ramona Expressway off-ramp	Freeway	C	24.1	E	35.7	E	37.7	**F**	58.2	D	31.5	**F**	57.1
Harley Knox Boulevard on-ramp to Cajalco/Ramona Expressway off-ramp	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2

Table 3.6.C Existing, 2020, and 2040 Freeway and Ramp Capacity Analysis: I-215

	Analysis Type	Year 2010				Year 2020				Year 2040			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		LOS	Density[1]	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density
Cajalco/Ramona Expressway off-ramp	Diverge	C	26.7	D	33.9	D	34.8	**F**	58.2	D	32.8	**F**	57.1
Cajalco/Ramona Expressway on-ramp	Merge	C	24.0	D	30.6	D	32.0	**F**	54.3	D	28.5	**F**	50.6
Cajalco/Ramona Expressway on-ramp to Nuevo Road off-ramp	Freeway	C	22.7	D	31.1	D	32.9	**F**	54.3	D	27.2	**F**	50.6
Cajalco/Ramona Expressway on-ramp to Nuevo Road off-ramp	HOV	-	-	-	-	D	32.2	D	32.2	D	32.2	D	32.2
Nuevo Road off-ramp	Diverge	C	24.9	D	31.7	D	31.9	**F**	54.3	E	36.3	**F**	63.1
Nuevo Road on-ramp	Merge (4)	C	23.7	D	28.5	D	31.9	**F**	45.0	**F**	46.1	**F**	61.3
Nuevo Road on-ramp to D Street off-ramp	Weave (5)	C	25.7	D	33.9	D	27.6	E	41.3	D	34.0	E	47.7

Source: *Traffic Technical Report* (2012).
[1] Density is expressed in passenger cars/miles/lane.
Note: **Bold** represents a deficient (LOS F) ramp or freeway segment.
As referenced in the beginning of this section, assumptions were made for other roadway improvements implemented by 2040 in the MCP study area. Therefore, for the 2040 conditions, there is an additional on- and off-ramp at Placentia Avenue on I-215.
HOV = high-occupancy vehicle
I-215 = Interstate 215
LOS = Level of Service
- = Not Applicable

Table 3.6.D lists the LOS and average delay for Existing (2010), Opening Year (2020), and Horizon Year (2040) conditions for the I-215 ramp intersections and other intersections near the freeway ramps. In 2010, three intersections operated worse than LOS D during a.m. peak hours and one intersection during p.m. peak hour. In 2020, three intersections will operate worse than LOS D during the p.m. peak hour, and in 2040, five intersections during the a.m. peak hour and eight intersections during the p.m. peak hour are forecast to operate worse than LOS D.

State Route 79

In the MCP traffic study area, SR-79 is currently a two-lane, undivided highway. The MCP project assumes that before the MCP project is operational, the proposed SR-79 project, which is currently in the planning process and would realign SR-79 as an expressway from Domenigoni Parkway on the south to Gilman Springs Road on the north, will be implemented. Therefore, the SR-79 realignment project has been incorporated into Opening Year (2020) and Horizon Year (2040) conditions.

Intersections

The MCP traffic study area is focused along Cajalco Road and Ramona Expressway for analysis of capacity and transportation demand since it is the main existing west-east connecting route between SR-79 and I-15. In its existing condition, Cajalco Road carries ADT ranging from 9,600 trips near Lake Mathews to 19,000 trips near I-215. Ramona Expressway carries ADT ranging from 27,500 trips near I-215 to 11,800 trips near SR-79. By 2020, Cajalco Road, between I-15 and I-215, is expected to be widened to a four-lane arterial, with further widening to six lanes by 2040. Additionally, by 2020, a new interchange is proposed to be constructed on I-215 at Placentia Avenue. In 2020, these traffic volumes will increase to 22,400 trips on Cajalco Road near Lake Mathews and 24,600 trips near I-215. Ramona Expressway will experience ADT ranging from 33,400 trips near I-215 and 37,200 trips near SR-79 in the year 2020. By 2040, these traffic volumes will increase to 37,300 trips on Cajalco Road near Lake Mathews and 50,600 trips near I-215. Ramona Expressway will experience ADT ranging from 79,000 trips near I-215 and 57,600 trips near SR-79.

It should be noted that some intersections are added and deleted in the future, based on local plans for street improvements and development projects. The project also results in some intersection deletions and additions. Intersections between I-15/I-215 and I-215/SR-79 that were analyzed in the Existing (2010), Opening Year (2020), and Horizon Year (2040) are described below.

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Table 3.6.D 2010, 2020, and 2040 Intersection Capacity Analysis: I-215 Area

Intersection	2010				2020				2040			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Alessandro Boulevard and Meridian Parkway	B	19	B	11.1	D	45.8	**F**	>80.0	**F**	>80.0	**F**	>80.0
Alessandro Boulevard and I-215 southbound ramps	B	10.1	B	10.2	D	43.9	D	46.8	E	61.4	**F**	>80.0
Alessandro Boulevard and I-215 northbound ramps	C	24.8	C	23.2	C	23.9	D	48	D	53.5	**F**	>80.0
Alessandro Boulevard and Valley Springs Parkway	A	9.4	B	10.4	C	25.1	E	77.4	E	74.8	**F**	>80.0
Cactus Avenue and Innovation Drive	C	19.5	B	12.8	B	16.8	B	18.5	C	29.9	**F**	>80.0
Cactus Avenue and I-215 southbound ramps	B	11.7	C	22.1	B	18.1	B	11.3	B	17.4	C	22.4
Cactus Avenue and I-215 northbound ramps	B	10.2	A	3	C	24.3	C	20.9	C	26.6	C	33.7
Cactus Avenue and Ellsworth Street	C	27	D	47.4	D	47.4	C	31.6	D	43.5	D	38.7
Van Buren Boulevard and Harmon Street	B	13.6	C	25.9	-	-	-	-	-	-	-	-
Van Buren Boulevard and Meridian Parkway	-	-	-	-	C	28	C	22	C	27.2	E	63.8
Van Buren Boulevard and I-215 southbound ramps	**F**	>50.0	**F**	>50.0	B	10.4	B	13	B	12.6	B	14.6
Van Buren Boulevard and I-215 northbound ramps	E	76.1	C	22	B	18.4	B	17.5	C	21.5	B	15
Harley Knox Boulevard and Harvill Avenue	A	9.9	B	12	B	14.9	B	17.2	C	20.8	C	21.8
Harley Knox Boulevard and I-215 southbound ramps	C	26.6	C	28.5	C	26	C	27.2	**F**	>80.0	**F**	>80.0
Harley Knox Boulevard and I-215 northbound ramps	B	12.1	A	9.2	B	16.4	C	21.2	**F**	>80.0	**F**	>80.0
Harley Knox Boulevard and Western Way	B	10.8	B	10.4	A	6.3	A	6.7	B	18.7	B	12.2
Cajalco Road and Harvill Avenue	C	22.1	C	23.8	C	21.4	C	27	D	37.5	D	37.7
Cajalco Road and I-215 southbound ramps	C	31	D	50.9	C	33.1	D	38.2	C	21.3	C	24.8
Cajalco Road and I-215 northbound ramps	C	22.6	B	17	D	40.1	C	26.9	B	19.6	C	24.5
Ramona Expressway and Webster Avenue	C	20.7	C	21.9	D	45.7	D	38	-	-	-	-
Cajalco Road and Webster Avenue	-	-	-	-	-	-	-	-	C	31.1	D	46.5
Placentia Avenue and Harvill Avenue	C	15.4	C	24.6	C	33.5	D	37.9	D	36.6	D	38.7
Placentia Avenue and East Frontage Road	A	9.1	B	10.1	B	13.9	B	11	B	18.5	B	18.3
Nuevo Road and A Street	E	39.2	D	27.2	B	14.4	C	20.2	B	17.4	C	23.1
Nuevo Road and I-215 southbound ramps	C	29.3	D	38.2	C	29	E	63.6	C	24.5	C	24
Nuevo Road and I-215 northbound ramps	B	11.9	B	17.7	B	16.4	C	25.3	A	8.3	B	15.1
Nuevo Road and Old Nuevo Road	B	15.7	B	13.6	C	29.4	D	38.9	D	42.8	D	38.4

Source: *Traffic Technical Report* (2012).
Note: **Bold** represents a deficient (LOS F) intersection.
I-215 = Interstate 215
LOS = Level of Service
> = greater than

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Interstate 15 to Interstate 215

Between the I-15 freeway and the I-215 freeway, nine existing intersections on Cajalco Road were analyzed. Table 3.6.E lists the LOS and average delay for the a.m. and p.m. peak hours for Existing (2010), Opening Year (2020), and Horizon Year (2040) conditions. In 2010, two intersections operated worse than LOS D during the a.m. and p.m. peak hours. By 2020, Cajalco Road, between I-15 and I-215, is expected to be widened to a four-lane arterial, with further widening to six lanes by 2040. Additionally, by 2020, a new interchange is proposed to be constructed on I-215 at Placentia Avenue. As a result, all study area intersections on Cajalco Road between I-15 and I-215 are expected to operate at satisfactory LOS D or better in the 2020 and 2040 conditions.

Interstate 215 to State Route 79

Between I-215 freeway and SR-79, 17 existing intersections were analyzed, nine of them being on Ramona Expressway. Eleven additional intersections were analyzed in the Opening Year (2020) and Horizon Year (2040) conditions that reflect the addition of new roadways in this area consistent with City and County General Plans. In addition, five existing intersections will no longer exist in the future condition (2020 and 2040).

Table 3.6.F lists the LOS and average delay for the a.m. and p.m. peak hours for Existing (2010), Opening Year (2020), and Horizon Year (2040) conditions. In 2010, 4 of the 17 existing intersections operated worse than LOS D during the a.m. peak hour and two intersections during the p.m. peak hour. In 2020, one intersection is forecast to operate worse than LOS D during the a.m. and p.m. peak hours, and in 2040, one intersection during the a.m. peak hour and two intersections during the p.m. peak hour will operate worse than LOS D.

Bicycle and Pedestrian Facilities

Bicycle travel is accommodated in the MCP study area through the use of designated bikeways and existing roadways. The Riverside County General Plan Circulation Element designates Class I bikeways for bicycle and pedestrian travel on a separate, paved right of way that is completely separated from streets or roadways, with minimal cross-flow from motorists. Class II bikeways provide a striped lane for one-way travel along a roadway or street. Class I/Regional (Combination) trails provide a connection to all major bodies of water and are open to both pedestrians and bicycles. Class III bikeways are designated bike routes noted by signs along roadways but

Table 3.6.E 2010, 2020, and 2040 Intersection Capacity Analysis: Cajalco Road, I-15 to I-215

Intersection	2010				2020				2040			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Cajalco Road and Eagle Valley Road	-	-	-	-	B	10.8	B	11.6	C	20.2	B	19.5
Cajalco Road and La Sierra Avenue	B	16.3	B	14.7	-	-	-	-	-	-	-	-
Cajalco Road and Lake Matthew Road	C	15.1	B	12.9	B	11.8	B	15.8	B	11.4	B	18
Cajalco Road and El Sobrante Road	B	11	C	20.2	B	11.4	B	15.6	B	18.7	B	15.6
Cajalco Road and Gavilan Road	B	10.5	B	14.6	-	-	-	-	-	-	-	-
Cajalco Road and Harley John Road	C	25.9	C	25.5	-	-	-	-	-	-	-	-
Cajalco Road and Wood Road	C	21.8	B	13.8	C	29.3	C	27.8	C	22.7	C	31.2
Cajalco Road and Alexander Street	**F**	>80.0	**F**	72.8	B	17.3	B	13.4	B	18.5	B	17.7
Cajalco Road and Clark Street	D	35.6	C	26	B	17.4	B	19.9	C	30.7	D	38.5
Cajalco Road and Seaton Avenue	**F**	>50.0	**F**	>50.0	-	-	-	-	-	-	-	-

Source: *Traffic Technical Report* (2012).
Note: **Bold** represents a deficient (LOS F) intersection.
I-15 = Interstate 15
I-215 = Interstate 215
LOS = Level of Service
sec = second
> = greater than
- = not applicable

Table 3.6.F 2010, 2020, and 2040 Intersection Capacity Analysis: Ramona Expressway, I-215 to SR-79

	2010				2020				2040			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Perris Boulevard and Markham Street	E	44.3	C	17.8	C	32.9	D	49.4	B	19.9	C	20.7
Perris Boulevard and Ramona Expressway	D	35.6	D	36.4	E	60.7	E	64.1	E	60.3	E	58.5
Perris Boulevard and Dawes Street	A	3.4	A	3.3	-	-	-	-	-	-	-	-
Perris Boulevard and Morgan Street	-	-	-	-	B	15.7	B	19.5	C	27.9	C	29.6
Evans Road and Marbella Gate	**F**	>80.0	C	23.3	A	2.9	A	2.4	A	2.7	A	2.1
Redlands Avenue and Ramona Expressway	-	-	-	-	-	-	-	-	D	50	E	71.8
Evans Road and Ramona Expressway	D	40.3	C	28.5	C	34.8	C	32.4	**F**	>80.0	**F**	>80.0
Evans Road and Morgan Street	C	20.1	B	14.9	A	9.4	A	8.7	A	8.5	A	7.5
Bernasconi Road and New Street	-	-	-	-	B	10.4	B	11	B	14.1	B	14
Rider Street and Ramona Expressway	B	19.7	C	21.5	-	-	-	-	-	-	-	-
Bernasconi Road and Ramona Expressway	-	-	-	-	C	25.2	C	24.7	**F**	>80.0	**F**	>80.0
Lakeview Avenue and Ramona Expressway	D	27.2	C	24	-	-	-	-	-	-	-	-
Bernasconi Road and Orange Avenue	-	-	-	-	C	30.1	C	33.8	C	28	C	33.8
Reservoir Avenue and 9th Street	B	10	A	8.8	B	15.9	B	15.2	B	14.4	B	14
Hansen Avenue and Ramona Expressway	B	16.6	B	17.5	-	-	-	-	-	-	-	-
Reservoir Avenue and Martin Street	-	-	-	-	B	18.7	B	19.6	B	17.5	B	17.3
Bridge Street and Ramona Expressway	C	17	C	22.9	-	-	-	-	-	-	-	-
Reservoir Avenue and Ramona Expressway	-	-	-	-	C	33.1	D	38.8	**F**	>80.0	**F**	>80.0
Warren Road and Ramona Expressway	B	20	C	21.4	D	38.3	C	30.8	E	69.3	D	38.4
Sanderson Avenue and Ramona Expressway	D	36.5	C	33.8	C	24	C	25.6	-	-	-	-
Sanderson Avenue and Cottonwood Avenue	B	12	B	11.4	C	29.8	C	31.4	D	38	D	37.7
Town Center Boulevard and Frontage Road	-	-	-	-	B	11.5	A	10	B	11.1	B	10.3
Town Center Boulevard and Ramona Expressway	-	-	-	-	D	38.5	D	36.9	**F**	>80.0	**F**	>80.0
Lyon Avenue and Ramona Expressway	B	10.8	B	11.2	-	-	-	-	-	-	-	-
Town Center Boulevard and 5th Street	-	-	-	-	C	23	C	22.1	C	29.5	C	31.5
Gilman Springs Road and SR-79 southbound ramps	E	44.5	**F**	>80.0	B	17.3	B	15.7	B	17.7	C	22.1
Park Center Boulevard and Marvin Road	-	-	-	-	D	35.3	C	29.6	C	32.5	C	29.6
Gilman Springs Road and SR-79 northbound ramps	E	49.2	**F**	>80.0	C	20.2	B	19.4	C	28.6	C	27
Park Center Boulevard and Ramona Expressway	-	-	-	-	D	36.1	C	33.8	**F**	>80.0	**F**	>80.0
Park Center Boulevard and New Street	-	-	-	-	A	6.7	A	7.2	A	7	A	7.1
Warren Road and Record Road	-	-	-	-	A	8.3	A	9	B	11.7	B	12.2

Table 3.6.F 2010, 2020, and 2040 Intersection Capacity Analysis: Ramona Expressway, I-215 to SR-79

	2010				2020				2040			
	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)	LOS	Average Delay (sec)
Ramona Expressway and Lyon Avenue	-	-	-	-	C	22.9	C	26.1	-	-	-	-
Ramona Expressway and SR-79 southbound ramps	-	-	-	-	B	18.5	B	17.5	D	35.4	D	38.8
Ramona Expressway and SR-79 northbound ramps	-	-	-	-	C	21.4	B	18.7	A	7.8	B	15.7
Sanderson Avenue and SR-79	-	-	-	-	D	49.2	D	45.3	-	-	-	-
Sanderson Avenue and SR-79 westbound ramps	-	-	-	-	-	-	-	-	C	20.1	C	24.8
Sanderson Avenue and SR-79 eastbound ramps	-	-	-	-	-	-	-	-	A	8.7	A	9.8

Source: *Traffic Technical Report* (2012).
Note: **Bold** represents a deficient (LOS F) intersection.
I-215 = Interstate 215
LOS = Level of Service
sec = second
SR-79 = State Route 79
> = greater than
- = not applicable

without separate striping. Figure 3.1.5, General Plan Trails, provided earlier, shows the locations of these bicycle facilities in the MCP study area.

Pedestrian facilities include sidewalks, walkways, crosswalks, pedestrian trails, and multipurpose trails. Sidewalks, walkways, and crosswalks typically are located throughout the MCP study area in urban and suburban areas where the roadway frontage is developed. Pedestrian trails, such as the County of Riverside's multipurpose trail designation, are also shown on Figure 3.1.5.

Transit Facilities

The Final EIR for the Perris Valley Line (PVL) project was certified by RCTC on July 25, 2011. The Federal Transit Administration issued a Finding of No Significant Impact (FONSI) for the PVL project on May 24, 2012. The Perris Multimodal Facility (which will also be the Downtown Perris Station on the PVL) is currently operating. The Riverside Hunter Park Station, the Moreno Valley/March Field Station, and Perris Station in the Historic Perris Depot on the PVL will be constructed concurrently with the construction of the PVL. An additional station, near the I-215/ Cajalco Road interchange, is proposed to be constructed along the PVL in the future.

3.6.3 Environmental Consequences

3.6.3.1 Permanent Impacts

Build Alternatives

The MCP project will yield mobility benefits by providing an efficient west-east connection between and through the cities of Perris and San Jacinto. Although the MCP project generally increases roadway capacity and mobility in the traffic study area, there are locations where the project causes a redistribution of traffic that is expected to add traffic to particular roadway segments. A detailed analysis of the locations in which the project is expected to add traffic to the street system has concluded that there are no locations in which the project would cause an adverse traffic impact. The results of this detailed traffic analysis are presented in this section. In some cases (such as the I-215 from the I-215/MCP interchange and Placentia Avenue in the I-215/Placentia Avenue interchange area), the project is expected to add traffic but will also add improvements to the roadway segment that would experience a traffic increase, thereby producing a net benefit to traffic operations. In other cases (such as the SR-79 near the MCP/SR-79 interchange), the project would be expected to add traffic, but the roadway that would be expected to experience a traffic increase is planned to have adequate capacity to accommodate 2040 traffic with the MCP project. There is also a third type of situation in which the MCP project

would be expected to add traffic to another roadway, but the traffic increase would not be substantial. An example of this situation is the segment of I-15 between Cajalco Road and SR-91.

The MCP Build Alternatives are described in detail in Section 2.3, Alternatives. Section 2.3 describes the MCP project mainline, system, and service interchange locations, lane geometry, base case, and design variations. Except where noted below for I-15 and I-215, most of the freeways, ramps, and intersections within the MCP traffic study area are expected to operate at acceptable LOS in the Existing (2010), Opening Year (2020) and the Horizon Year (2040) for all of the MCP Build Alternatives and design variations.

Existing (2010)

Existing (2010) Build Conditions have been analyzed to satisfy CEQA conformance and have been discussed in Chapter 4, Transportation and Traffic. Tables 4.XVI.A, 4.XVI.B, 4.XVI.C, and 4.XVI.D show comparison of the Existing and Existing plus Build Alternatives LOS for intersections, freeway segments, and ramp merge/diverge areas, respectively. As shown in Table 4.XVI.A in Chapter 4.0, six intersections would be adversely impacted by the project in the Existing plus Project (Alternative 4 Modified), Existing plus Project (Alternative 5 Modified) and Existing plus Project (Alternative 9 Modified) conditions. Implementation of Mitigation Measures TR-3 through TR-7 would mitigate the adverse effects at the impacted intersections, as shown in Table 4.XVI.D in Chapter 4.0. However, there is not a substantial increase in LOS or delay with the MCP project compared to the No Build Condition for freeway segments and ramps.

Project Opening Year (2020)

The initial phase of the project that would be built by 2020 would include the following improvements: (1) an interchange at I-215/Placentia Avenue; (2) one additional lane in each direction on I-215 from Nuevo Road to Van Buren Boulevard; and (3) a four-lane arterial from 0.5 mile west of Bernasconi Road to 0.5 mile west of Reservoir Avenue, including an intersection with Bernasconi Road, and a four-lane arterial roadway from 0.5 mile west of Reservoir Avenue to 0.5 mile west of Warren Road, including service interchanges at Reservoir Avenue, Town Center Boulevard, and Park Center Boulevard. This initial phase is common to Alternatives 4 Modified, 5 Modified, and 9 Modified, so any of the MCP Build Alternatives could be implemented following completion of the initial phase. The LOS for freeway, mainline, ramps, and intersections in the Opening Year (2020) No Build and Build

Alternatives are shown in Tables 3.6.G, 3.6.H, and 3.6.I, respectively. A discussion of traffic deficiencies in the Opening Year (2020) is provided below.

- The interchange of I-15 and Magnolia Avenue and the Magnolia Avenue/El Sobrante Road intersection are expected to experience unsatisfactory LOS conditions in the opening year of 2020 for the No Build and Build Alternatives. However, traffic levels for the Build Alternative are not substantially higher than traffic levels for the No Build Alternative. Therefore, there are no adverse traffic conditions caused by the project at this location.
- In 2020, under No Build and Build Alternatives, freeway segments, weaving segments, and ramp merge and diverge areas on I-215 are forecast to operate at LOS E and F. The project is expected to add traffic to I-215 north of the I-215/ MCP interchange and reduce traffic south of the I-215/MCP interchange, as compared to the No Build Alternative. However, the MCP project includes the addition of one mainline lane in each direction along I-215 from Nuevo Road to Van Buren Boulevard, which would result in satisfactory operation of that segment of the freeway mainline. The Build Alternatives project traffic volume that is added to I-215 would be accommodated by the additional freeway mainline lanes, and traffic conditions in the Build Alternatives, along I-215 from Nuevo Road to Van Buren Boulevard, are better than in the No Build Alternative.
- Seven intersections are expected to experience LOS E or F under No Build Alternatives in 2020. Implementation of the MCP project would result in improvement to all study area intersections except Magnolia Avenue/El Sobrante Road, Magnolia Avenue/I-15 southbound ramp, and Alessandro Boulevard/ Meridian Parkway. Traffic levels for the Build Alternatives are not substantially higher than traffic levels for the No Build Alternatives at these locations. Therefore, there are no adverse traffic conditions caused by the project at these intersections.

2040 Horizon Year Conditions

The LOS for freeway, ramps, mainline, and intersections in the Horizon Year (2040) No Build and Build Alternatives are shown in Tables 3.6.J, 3.6.K, and 3.6.L, respectively. A discussion of traffic deficiencies in the Horizon Year (2040) condition is provided below.

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Table 3.6.G 2020 Freeway Ramps Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

	2020 No Build							2020 Build						
	Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour		
			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS
I-215	**D Street and I-215**								**D Street and I-215**							
	Northbound Nuevo to D Street	Weave	6817	-	D	6317	-	D	Northbound Nuevo to D Street	Weave	7057	-	D	6348	-	D
	Southbound Nuevo to D Street	Weave	5580	-	D	7666	-	E	Southbound Nuevo to D Street	Weave	5828	-	C	8006	-	E
	Nuevo Road and I-215								**Nuevo Road and I-215**							
	Nuevo northbound off-ramp	Diverge	6817	678	B	6317	697	B	Nuevo northbound off-ramp	Diverge	7057	497	B	6438	508	A
	Nuevo northbound on-ramp	Merge	6133	621	**F**	5620	549	D	Nuevo northbound on-ramp	Merge	6560	544	C	5930	438	C
	Nuevo southbound off-ramp	Diverge	5537	488	D	7813	864	**F**	Nuevo southbound off-ramp	Diverge	5720	317	D	8095	657	**F**
	Nuevo southbound on-ramp	Merge	5049	531	D	6949	717	**F**	Nuevo southbound on-ramp	Merge	5403	425	D	7438	568	**F**
	MCP and I-215								**MCP and I-215**							
	I-215 northbound - MCP eastbound off-ramp	Diverge	-	-	-	-	-	-	I-215 northbound - MCP eastbound off-ramp	Diverge	-	-	-	-	-	-
	MCP westbound - I-215 northbound on-ramp	Merge	-	-	-	-	-	-	MCP westbound - I-215 northbound on-ramp	Merge	-	-	-	-	-	-
	I-215 southbound - MCP eastbound off-ramp	Diverge	-	-	-	-	-	-	I-215 southbound - MCP eastbound off-ramp	Diverge	-	-	-	-	-	-
	MCP westbound - I-215 southbound on-ramp	Merge	-	-	-	-	-	-	MCP westbound - I-215 southbound on-ramp	Merge	-	-	-	-	-	-
	Placentia Avenue and I-215								**Placentia Avenue and I-215**							
	Placentia northbound off-ramp	Diverge	-	-	-	-	-	-	Placentia northbound off-ramp	Diverge	7104	457	D	6368	421	C
	Placentia northbound on-ramp	Merge	-	-	-	-	-	-	Placentia northbound on-ramp	Merge	6647	346	C	5947	475	C
	Placentia southbound off-ramp	Diverge	-	-	-	-	-	-	Placentia southbound off-ramp	Diverge	5768	422	C	7969	389	D
	Placentia southbound on-ramp	Merge	-	-	-	-	-	-	Placentia southbound on-ramp	Merge	5346	374	C	7580	515	C
	Cajalco Road/Ramona Expressway and I-215								**Cajalco Road/Ramona Expressway and I-215**							
	Ramona northbound off-ramp	Diverge	6754	659	**F**	6169	721	D	Ramona northbound off-ramp	Diverge	6993	562	D	6422	633	D
	Ramona northbound on-ramp	Merge	6095	1352	**F**	5458	1106	**F**	Ramona northbound on-ramp	Merge	6431	1230	C	5789	1039	C
	Cajalco southbound off-ramp	Diverge	5993	1097	D	8369	1346	**F**	Cajalco southbound off-ramp	Diverge	6122	906	D	8593	1223	**F**
	Cajalco southbound on-ramp	Merge	4896	641	D	7023	790	**F**	Cajalco southbound on-ramp	Merge	5216	552	C	7370	599	C
	Harley Knox Boulevard and I-215								**Harley Knox Boulevard and I-215**							
	Harley Knox northbound off-ramp	Diverge	7447	436	**F**	6564	460	E	Harley Knox northbound off-ramp	Diverge	7661	388	D	6828	368	D
	Harley Knox northbound on-ramp	Merge	7011	582	**F**	6094	775	**F**	Harley Knox northbound on-ramp	Merge	7273	609	C	6460	803	C
	Harley Knox southbound off-ramp	Diverge	6358	673	E	8555	645	**F**	Harley Knox southbound off-ramp	Diverge	6596	698	D	8869	665	**F**
	Harley Knox southbound on-ramp	Merge	5685	308	D	7910	459	**F**	Harley Knox southbound on-ramp	Merge	5898	224	C	8204	389	C
	Van Buren Boulevard and I-215								**Van Buren Boulevard and I-215**							
	Van Buren northbound off-ramp	Diverge	7593	865	**F**	6869	724	**F**	Van Buren northbound off-ramp	Diverge	7882	915	B	7263	838	B
	Van Buren eastbound-northbound on-ramp	Merge	6728	609	**F**	6145	530	**F**	Van Buren eastbound-northbound on-ramp	Merge	6967	551	**F**	6425	508	**F**
	Van Buren westbound-northbound on-ramp	Merge	7337	140	**F**	6675	162	**F**	Van Buren westbound-northbound on-ramp	Merge	7518	150	**F**	6933	170	**F**
	Van Buren southbound off-ramp	Diverge	6391	621	E	8448	727	**F**	Van Buren southbound off-ramp	Diverge	6476	599	E	8603	674	**F**
	Van Buren southbound on-ramp	Merge	5770	588	E	7721	834	**F**	Van Buren southbound on-ramp	Merge	5877	719	E	7929	940	**F**
	Cactus Avenue and I -215								**Cactus Avenue and I-215**							
	Cactus northbound off-ramp	Diverge	7477	884	**F**	6837	684	**F**	Cactus northbound off-ramp	Diverge	7668	888	**F**	7103	719	**F**
	Cactus eastbound-northbound on-ramp	Merge	6593	167	**F**	6153	245	E	Cactus eastbound-northbound on-ramp	Merge	6780	167	**F**	6384	245	E
	Cactus westbound-northbound on-ramp	Merge	6760	264	**F**	6398	415	**F**	Cactus westbound-northbound on-ramp	Merge	6947	249	**F**	6629	367	**F**
	Cactus southbound-westbound off-ramp	Diverge	6226	338	D	8218	309	**F**	Cactus southbound-westbound off-ramp	Diverge	6292	327	D	8342	282	**F**
	Cactus southbound-eastbound off-ramp	Diverge	5888	218	D	7909	188	**F**	Cactus southbound-eastbound off-ramp	Diverge	5965	218	D	8060	188	**F**
	Cactus southbound on-ramp	Merge	5670	721	E	7611	837	**F**	Cactus southbound on-ramp	Merge	5747	729	E	7872	731	**F**
	Alessandro Boulevard and I-215								**Alessandro Boulevard and I-215**							
	Alessando northbound off-ramp	Diverge	7024	915	**F**	6813	905	**F**	Alessando northbound off-ramp	Diverge	7196	926	**F**	6996	917	**F**
	Alessando northbound on-ramp	Merge	6109	585	**F**	5908	685	E	Alessando northbound on-ramp	Merge	6270	516	**F**	6025	667	**F**
	Alessandro southbound off-ramp	Diverge	6117	593	D	8017	686	E	Alessandro southbound off-ramp	Diverge	6069	509	D	8108	665	**F**
	Alessandro eastbound-southbound on-ramp	Merge	5744	482	D	7630	588	**F**	Alessandro eastbound-southbound on-ramp	Merge	5780	512	E	7742	600	**F**
	Alessandro westbound-southbound on-ramp	Merge	5524	220	D	7331	299	**F**	Alessandro westbound-southbound on-ramp	Merge	5560	220	D	7443	299	**F**

Table 3.6.G 2020 Freeway Ramps Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

	2020 No Build								2020 Build							
	Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour		
			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS
I-15	**Temescal Canyon Road and I-15**								**Temescal Canyon Road and I-15**							
	Temescal northbound off-ramp	Diverge	6142	210	C	5654	194	C	Temescal northbound off-ramp	Diverge	6142	210	C	5654	194	C
	Temescal northbound on-ramp	Merge	5932	633	C	5460	583	C	Temescal northbound on-ramp	Merge	5932	633	C	5460	583	C
	Temescal southbound off-ramp	Diverge	5371	519	C	7385	713	D	Temescal southbound off-ramp	Diverge	5371	519	C	7385	713	D
	Temescal southbound on-ramp	Merge	4852	174	B	6672	238	C	Temescal southbound on-ramp	Merge	4852	174	B	6672	238	C
	Weirick Road and I-15								**Weirick Road and I-15**							
	Weirick northbound off-ramp	Diverge	6565	541	D	6043	499	C	Weirick northbound off-ramp	Diverge	6562	541	D	6043	499	C
	Weirick northbound on-ramp	Merge	6024	858	C	5544	790	C	Weirick northbound on-ramp	Merge	6024	858	C	5544	790	C
	Weirick southbound off-ramp	Diverge	5630	702	C	7742	966	E	Weirick southbound off-ramp	Diverge	5630	702	C	7742	966	E
	Weirick southbound on-ramp	Merge	4928	443	B	6776	609	C	Weirick southbound on-ramp	Merge	4928	443	B	6776	609	C
	Cajalco Road and I-15								**Cajalco Road and I-15**							
	Cajalco northbound off-ramp	Diverge	6882	723	D	6334	666	D	Cajalco northbound off-ramp	Diverge	6882	723	D	6334	666	D
	Cajalco eastbound - northbound on-ramp	Merge	6159	370	C	5668	340	C	Cajalco eastbound - northbound on-ramp	Merge	6159	370	C	5668	340	C
	Cajalco westbound - northbound on-ramp	Merge	6529	547	C	6008	505	C	Cajalco westbound - northbound on-ramp	Merge	6529	565	C	6008	521	C
	Cajalco southbound off-ramp	Diverge	5793	759	C	7956	1034	**F**	Cajalco southbound off-ramp	Diverge	5809	775	C	7974	1052	**F**
	Cajalco southbound on-ramp	Merge	5034	596	B	6922	820	C	Cajalco southbound on-ramp	Merge	5034	596	B	6922	820	C
	El Cerrito Road and I -15								**El Cerrito Road and I -15**							
	El Cerrito northbound off-ramp	Diverge	7076	546	D	6513	426	D	El Cerrito northbound off-ramp	Diverge	7094	546	D	6529	426	D
	El Cerrito northbound on-ramp	Merge	6530	660	C	6087	531	C	El Cerrito northbound on-ramp	Merge	6548	660	C	6103	531	C
	El Cerrito southbound off-ramp	Diverge	5887	472	C	8085	650	E	El Cerrito southbound off-ramp	Diverge	5903	472	C	8103	650	E
	El Cerrito southbound on-ramp	Merge	5418	378	C	7435	521	C	El Cerrito southbound on-ramp	Merge	5431	378	C	7453	521	C
	Ontario Road and I-15								**Ontario Road and I-15**							
	Ontario northbound off-ramp	Diverge	7014	889	D	6451	818	D	Ontario northbound off-ramp	Diverge	7032	889	D	6467	818	D
	Ontario northbound on-ramp	Merge	6125	652	C	5633	605	C	Ontario northbound on-ramp	Merge	6143	652	C	5649	605	C
	Ontario southbound off-ramp	Diverge	5548	532	C	7619	732	D	Ontario southbound off-ramp	Diverge	5564	532	C	7637	732	D
	Ontario southbound on-ramp	Merge	5016	727	B	6887	1000	C	Ontario southbound on-ramp	Merge	5032	727	C	6905	1000	C
	Magnolia Ave and I -15								**Magnolia Ave and I -15**							
	Magnolia northbound off-ramp	Diverge	6777	1121	D	6238	916	D	Magnolia northbound off-ramp	Diverge	6795	1121	D	6254	916	D
	Magnolia eastbound - northbound on-ramp	Merge	5656	1140	C	5322	901	C	Magnolia eastbound - northbound on-ramp	Merge	5674	1140	C	5338	901	C
	Magnolia westbound-northbound on-ramp	Merge	6796	579	C	6223	455	C	Magnolia westbound-northbound on-ramp	Merge	6814	579	C	6239	455	C
	Magnolia southbound off-ramp	Diverge	6819	2084	**F**	8047	1546	**F**	Magnolia southbound off-ramp	Diverge	6835	2084	**F**	8065	1546	**F**
	Magnolia southbound on-ramp	Merge	4735	813	B	6501	1118	C	Magnolia southbound on-ramp	Merge	4751	813	B	6519	1118	C
MCP	**Reservoir Avenue and MCP**								**Reservoir Avenue and MCP**							
	Reservoir eastbound off-ramp	Diverge	-	-	-	-	-	-	Reservoir eastbound off-ramp	Diverge	1273	113	B	1880	139	B
	Reservoir eastbound on-ramp	Merge	-	-	-	-	-	-	Reservoir eastbound on-ramp	Merge	1160	270	B	1741	259	B
	Reservoir westbound off-ramp	Diverge	-	-	-	-	-	-	Reservoir westbound off-ramp	Diverge	1778	239	B	1636	317	B
	Reservoir westbound on-ramp	Merge	-	-	-	-	-	-	Reservoir westbound on-ramp	Merge	1539	123	B	1319	113	B
	Town Center Boulevard and MCP								**Town Center Boulevard and MCP**							
	Town Center eastbound off-ramp	Diverge	-	-	-	-	-	-	Town Center eastbound off-ramp	Diverge	1454	295	B	2000	406	B
	Town Center eastbound on-ramp	Merge	-	-	-	-	-	-	Town Center eastbound on-ramp	Merge	1159	158	B	1594	146	B
	Town Center westbound off-ramp	Diverge	-	-	-	-	-	-	Town Center westbound off-ramp	Diverge	1547	130	B	1482	178	B
	Town Center westbound on-ramp	Merge	-	-	-	-	-	-	Town Center westbound on-ramp	Merge	1417	361	B	1304	332	B
	Park Center Boulevard and MCP								**Park Center Boulevard and MCP**							
	Park Center eastbound off-ramp	Diverge	-	-	-	-	-	-	Park Center eastbound off-ramp	Diverge	1317	209	B	1740	287	B
	Park Center eastbound on-ramp	Merge	-	-	-	-	-	-	Park Center eastbound on-ramp	Merge	1108	167	B	1453	154	B
	Park Center westbound off-ramp	Diverge	-	-	-	-	-	-	Park Center westbound off-ramp	Diverge	1429	137	B	1435	188	B
	Park Center westbound on-ramp	Merge	-	-	-	-	-	-	Park Center westbound on-ramp	Merge	1292	255	B	1247	235	B

Source: *Traffic Technical Report* (2012).
Note: **Bold** represents a deficient (LOS F) ramp.
HOV = High Occupancy Vehicle
I-15 = Interstate 15
I-215 = Interstate 215
LOS = Level of Service
MCP = Mid County Parkway
- = Not Applicable

Table 3.6.H 2020 Freeway Mainline Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

				2020 No Build				2020 Build			
Fwy	Dir	Segment	Lane Type	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density	LOS	Density	LOS	Density	LOS	Density	LOS
MCP	Eastbound	West of Reservoir Avenue	General Purpose	-	-	-	-	11	A	16.2	B
		Reservoir Avenue to Town Center Boulevard		-	-	-	-	12.5	B	17.2	B
		Town Center Boulevard to Park Center Boulevard		-	-	-	-	11.3	B	15.0	B
		East of Park Center Boulevard		-	-	-	-	11.0	A	13.9	B
	Westbound	East of Park Center Boulevard		-	-	-	-	12.3	B	12.4	B
		Park Center Boulevard to Town Center Boulevard		-	-	-	-	13.3	B	12.8	B
		Town Center Boulevard to Reservoir Avenue		-	-	-	-	15.3	B	14.1	B
		West of Reservoir Avenue		-	-	-		14.3	B	12.3	B
I-15	Northbound	South of Temescal Canyon Road	General Purpose	25.4	C	23.3	C	25.4	C	23.3	C
		Temescal Canyon Road to Weirick Road		27.5	D	25.0	C	27.5	D	25.0	C
		Weirick Road to Cajalco Road		29.2	D	26.3	D	29.2	D	26.3	D
		Cajalco Road to El Cerrito Road		30.3	D	27.2	D	30.5	D	27.3	D
		El Cerrito Road to Ontario Avenue		30.0	D	26.9	D	30.1	D	27.0	D
		Ontario Avenue to Magnolia Avenue		28.6	D	25.9	D	28.7	D	26.0	C
		Magnolia Avenue to SR-91		32.3	D	28.1	D	32.4	D	28.2	D
		Temescal Canyon Road to Ontario Avenue	HOV	32.2	D	32.2	D	32.2	D	32.2	D
		Ontario Avenue to SR-91		32.2	D	32.2	D	32.2	D	32.2	D
	Southbound	SR-91 to Magnolia Avenue	General Purpose	28.8	D	37.6	E	28.9	D	37.8	E
		Magnolia Avenue to Ontario Avenue		22.8	D	34.0	D	22.9	C	34.2	D
		Ontario Avenue to El Cerrito Road		24.3	C	38.0	E	24.4	C	38.2	E
		El Cerrito Road to Cajalco Road		23.9	C	36.8	E	24.0	C	37.0	E
		Cajalco Road to Weirick Road		26.4	C	35.0	D	23.2	C	35.0	D
		Weirick Road to Temescal Canyon Road		22.1	C	32.3	D	22.1	C	32.3	D
		South of Temescal Canyon Road		20.7	D	29.4	D	20.4	C	29.4	D
		SR-91 To Ontario Avenue	HOV	32.2	D	32.2	D	32.2	D	32.2	D
		Ontario Avenue to Temescal Canyon Road		32.2	D	32.2	D	32.2	D	32.2	D

Table 3.6.H 2020 Freeway Mainline Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

				2020 No Build				2020 Build			
Fwy	Dir	Segment	Lane Type	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density	LOS	Density	LOS	Density	LOS	Density	LOS
I-215	Northbound	Nuevo Road to Placentia Avenue	General Purpose	-	-	-	-	30.5	D	26.5	D
		Nuevo Road to Ramona Exp		47.0	**F**	40.1	E	-	-	-	-
		Placentia Avenue to Ramona Exp		-	-	-	-	29.8	D	26.8	D
		Ramona Expressway to Harley Knox Boulevard		51.8	**F**	45.7	**F**	34.4	D	28.9	D
		Harley Knox Boulevard to Van Buren Boulevard		52.8	**F**	47.8	**F**	36.2	E	31.5	D
		Van Buren Boulevard to Cactus Avenue		52.0	**F**	47.6	**F**	53.3	**F**	49.4	**F**
		Cactus Avenue to Alessandro Boulevard		48.9	**F**	47.4	**F**	50.0	**F**	48.7	**F**
		North of Alessandro Boulevard		46.6	**F**	45.9	**F**	47.2	**F**	46.9	**F**
	Southbound	North of Alessandro Boulevard	General Purpose	39.3	E	55.5	**F**	38.7	E	56.4	**F**
		Alessandro Boulevard to Cactus Avenue		40.9	E	57.2	**F**	41.9	E	58.0	**F**
		Cactus Avenue to Van Buren Boulevard		43.5	E	58.8	**F**	45.0	E	59.8	**F**
		Van Buren Boulevard to Harley Knox Boulevard		36.1	E	59.5	**F**	27.6	D	45.9	**F**
		Harley Knox Boulevard to Cajalco Road		37.7	E	58.2	**F**	25.4	C	43.7	E
		Cajalco Road to Placentia Avenue		-	-	-	-	23.8	C	36.9	E
		Cajalco Road to Nuevo Road		32.9	D	54.3	**F**	-	-	-	-
		Placentia Avenue to Nuevo Road		-	-	-	-	23.6	C	38.1	E

Source: *Traffic Technical Report* (2012).
Note: **Bold** represents a deficient (LOS F) segment.
Dir = Direction
Fwy = Freeway
HOV = High Occupancy Vehicle
I-15 = Interstate 15
I-215 = Interstate 215
LOS = Level of Service
MCP = Mid County Parkway
SR-79 = State Route 79
- = Not Applicable

Table 3.6.I Intersection Peak-Hour LOS for Opening Year 2020 Conditions

Arterial	Intersection	Opening Year 2020 No Build				Opening Year 2020 Build			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Perris Boulevard	Perris Boulevard and Markham Street	32.9	C	49.4	D	31.2	C	46.6	D
	Perris Boulevard and Ramona Expressway	60.7	E	64.1	E	46.9	D	50.1	D
	Perris Boulevard and Morgan Street	15.7	B	19.5	B	15.6	B	19.2	B
Redlands Avenue	Redlands Avenue and Ramona Expressway	-	-	-	-	-	-	-	-
Evans Road	Evans Road and Marbella Gate	2.9	A	2.4	A	3.1	A	2.4	A
	Evans Road and Ramona Expressway	34.8	C	32.4	C	34.8	C	32.4	C
	Evans Road and Morgan Street	9.4	A	8.7	A	9.6	A	9.0	A
Bernasconi Road	Bernasconi Road and New Street	10.4	B	11.0	B	11.3	B	10.9	B
	Bernasconi Road and Ramona Expressway	25.2	C	24.7	C	23.3	C	24.7	C
	Bernasconi Road and Orange Avenue	30.1	C	33.8	C	29.6	C	34.0	C
Reservoir Avenue	Reservoir Avenue and Martin Street	18.7	B	19.6	B	39.4	D	33.1	C
	Reservoir Avenue and Ramona Expressway	33.1	C	38.8	D	-	-	-	-
	Reservoir Avenue and MCP westbound ramps	-	-	-	-	14.9	B	16.5	B
	Reservoir Avenue and MCP eastbound ramps	-	-	-	-	4.3	A	4.7	A
	Reservoir Avenue and 9th Street	15.9	B	15.2	B	14.3	B	13.4	B
Town Center Boulevard	Town Center Boulevard and Frontage Road	11.5	B	10.0	A	15.1	B	14.7	B
	Town Center Boulevard and Ramona Expressway	38.5	D	36.9	D	-	-	-	-
	Town Center Boulevard and MCP westbound ramps	-	-	-	-	4.7	A	5.2	A
	Town Center Boulevard and MCP eastbound ramps	-	-	-	-	12.8	B	9.0	A
	Town Center Boulevard and 5th Street	23.0	C	22.1	C	23.9	C	22.0	C
Park Center Boulevard	Park Center Boulevard and Marvin Road	35.3	D	29.6	C	35.2	D	30.2	C
	Park Center Boulevard and Ramona Expressway	36.1	D	33.8	C	-	-	-	-
	Park Center Boulevard and MCP westbound ramps	-	-	-	-	7.0	A	9.7	A
	Park Center Boulevard and MCP eastbound ramps	-	-	-	-	10.9	B	13.0	B
	Park Center Boulevard and New Street	6.7	A	7.2	A	6.5	A	6.8	A
Warren Road	Warren Road and Ramona Expressway	38.3	D	30.8	C	33.9	C	30.2	C
	Warren Road and Record Road	8.3	A	9.0	A	8.1	A	9.1	A
Gilman Springs Road	Gilman Springs Road and SR-79 southbound ramps	17.3	B	15.7	B	17.1	B	15.3	B
	Gilman Springs Road and SR-79 northbound ramps	20.2	C	19.4	B	20.1	C	17.7	C
Sanderson Avenue	Sanderson Avenue and Ramona Expressway	24.0	C	25.6	C	24.5	C	26.8	C
	SR-79 and Sanderson Avenue	50.0	D	59.9	E	50.0	D	47.9	D

Table 3.6.I Intersection Peak-Hour LOS for Opening Year 2020 Conditions

Arterial	Intersection	Opening Year 2020 No Build				Opening Year 2020 Build			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Ramona Expressway	Sanderson Avenue and Cottonwood Avenue	29.8	C	31.4	C	29.8	C	31.4	C
	Ramona Expressway and SR-79 southbound ramps	18.5	B	17.5	B	17.9	B	17.0	B
	Ramona Expressway and SR-79 northbound ramps	21.4	C	18.7	B	21.9	C	21.4	C
	Lyon and Ramona Expressway	22.9	C	26.1	C	22.9	C	25.9	C
	Ramona Expressway and Webster Avenue	45.7	D	38.0	D	42.3	D	38.9	D
Magnolia Avenue	Magnolia Avenue and El Sobrante Road	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**
	Magnolia Avenue and I-15 southbound ramps	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**
	Magnolia Avenue and I-15 northbound ramps	21.7	C	17.1	B	21.7	C	17.1	B
	Magnolia Avenue and El Camino Avenue	14.3	B	23.4	C	14.3	B	23.4	C
Ontario Avenue	Ontario Avenue and California Avenue	27.9	C	48.3	D	27.9	C	48.3	D
	Ontario Avenue and I-15 southbound ramps	10.8	B	15.2	B	10.8	B	15.2	B
	Ontario Avenue and I-15 northbound ramps	31.0	C	28.7	C	31.0	C	28.7	C
	Ontario Avenue and State Street	12.9	B	11.0	B	12.9	B	11.0	B
El Cerrito Road	El Cerrito Road and Bedford Canyon Road	15.7	B	18.7	B	15.7	B	18.7	B
	El Cerrito Road and I-15 southbound ramps	13.1	B	13.9	B	13.1	B	13.9	B
	El Cerrito Road and I-15 northbound ramps	29.9	C	27.6	C	29.9	C	27.6	C
	El Cerrito Road and Temescal Canyon Road	25.1	C	18.8	B	25.1	C	18.8	B
Cajalco Road	Cajalco Road and Bedford Canyon Road	17.1	B	26.0	C	17.1	B	26.1	C
	Cajalco Road and I-15 southbound ramps	24.0	C	23.4	C	24.0	C	23.5	C
	Cajalco Road and I-15 northbound ramps	12.1	B	11.6	B	12.3	B	11.6	B
	Cajalco Road and Temescal Canyon Road	29.2	C	38.0	D	29.0	C	37.9	D
	Eagle Valley Road and Cajalco Road	10.8	B	11.6	B	10.7	B	11.7	B
	Lake Matthews Road and Cajalco Road	11.8	B	15.8	B	11.4	B	16.2	B
	El Sobrante Road and Cajalco Road	11.4	B	15.6	B	11.6	B	10.7	B
	Wood Road and Cajalco Road	29.3	C	27.8	C	19.4	B	19.0	B
	Alexander Street and Cajalco Road	17.3	B	13.4	B	17.3	B	13.8	B
	Clark Street and Cajalco Road	17.4	B	19.9	B	17.9	B	19.7	B
	Cajalco Road and Harvill Avenue	21.4	C	27.0	C	29.8	C	32.0	C
	Cajalco Road and I-215 southbound ramps	33.1	C	38.2	D	25.4	C	32.5	D
	Cajalco Road and I-215 northbound ramps	40.1	D	26.9	C	44.9	D	33.4	C
Weirick Road	Weirick Road and Knabe Road	28.3	C	28.4	C	28.3	C	28.4	C
	Weirick Road and I-15 southbound ramps	21.5	C	23.3	C	21.5	C	23.3	C
	Weirick Road and I-15 northbound ramps	10.7	B	9.8	A	10.7	B	9.8	A
	Weirick Road and Temescal Canyon Road	23.7	C	27.4	C	23.7	C	27.4	C

Table 3.6.I Intersection Peak-Hour LOS for Opening Year 2020 Conditions

Arterial	Intersection	Opening Year 2020 No Build				Opening Year 2020 Build			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Temescal Canyon Road	Temescal Canyon Road and Lawson Drive	8.6	A	7.7	A	8.6	A	7.7	A
	Temescal Canyon Road and I-15 southbound ramps	15.4	B	23.7	C	15.4	B	23.7	C
	Temescal Canyon Road and I-15 northbound ramps	23.3	C	25.1	C	23.3	C	25.1	C
Alessandro Boulevard	Alessandro Boulevard and Meridian Parkway	45.8	D	>80.0	**F**	37.5	D	>80.0	**F**
	Alessandro Boulevard and I-215 southbound ramps	43.9	D	46.8	D	10.0	B	25.6	C
	Alessandro Boulevard and I-215 northbound ramps	23.9	C	48.0	D	22.8	C	40.8	D
	Alessandro Boulevard and Valley Springs Parkway	25.1	C	77.4	E	24.3	C	52.6	D
Cactus Avenue	Cactus Avenue and Innovation Drive	16.8	B	18.5	B	16.8	B	17.1	B
	Cactus Avenue and I-215 southbound ramps	18.1	B	11.3	B	14.1	B	13.8	B
	Cactus Avenue and I-215 northbound ramps	24.3	C	20.9	C	24.5	C	22.7	C
	Cactus Avenue and Ellsworth Street	47.4	D	31.6	C	47.9	D	32.3	C
Van Buren Boulevard	Van Buren Boulevard and Meridian Parkway	28.0	C	22.0	C	26.8	C	31.9	C
	Van Buren Boulevard and I-215 southbound ramps	10.4	B	13.0	B	11.5	B	11.1	B
	Van Buren Boulevard and I-215 northbound ramps	18.4	B	17.5	B	18.9	B	18.6	B
Harley Knox Boulevard	Harley Knox Boulevard and Harvill Avenue	14.9	B	17.2	B	14.5	B	13.6	B
	Harley Knox Boulevard and I-215 southbound ramps	26.0	C	27.2	C	24.3	C	23.1	C
	Harley Knox Boulevard and I-215 northbound ramps	16.4	B	21.2	C	17.8	B	20.9	C
	Harley Knox Boulevard and Western Way	6.3	A	6.7	A	6.0	A	7.6	A
Placentia Avenue	Placentia Avenue and Harvill Avenue	33.5	C	37.9	D	31.2	C	36.6	D
	Placentia Avenue and I-215 southbound ramps	-	-	-	-	14.3	B	14.6	B
	Placentia Avenue and I-215 northbound ramps	-	-	-	-	15.5	B	16.0	B
	Placentia Avenue and East Frontage Road	13.9	B	11.0	B	10.8	B	9.3	A
Nuevo Road	Nuevo Road and A Street	14.4	B	20.2	C	12.1	B	17.9	B
	Nuevo Road and I-215 southbound ramps	29.0	C	63.6	E	20.3	C	31.1	C
	Nuevo Road and I-215 northbound ramps	16.4	B	25.3	C	10.7	B	16.7	B
	Nuevo Road and Old Nuevo Road	29.4	C	38.9	D	30.3	C	33.4	C

Source: *Traffic Technical Report* (2012).
Note: Black box ■ represents an intersection with an impact. **Bold** represents a deficient (LOS F) intersection.
Delay >80 = Exceeds 80 seconds MCP = Mid County Parkway
I-15 = Interstate 15 sec= seconds
I-215 = Interstate 215 SR-79 = State Route 79
LOS = Level of Service - = Not Applicable

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Table 3.6.J 2040 Freeway Ramps Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

	2040 No Build								2040 Alternative 4 Modified								2040 Alternative 5 Modified								2040 Alternative 9 Modified							
	Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour		
			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS
MCP	**Perris Boulevard and MCP**								**Perris Boulevard and MCP**								**Perris Boulevard and MCP**								**Perris Boulevard and MCP**							
	Perris EB off-ramp	Diverge	-	-	-	-	-	-	Perris EB off-ramp	Diverge	2505	413	B	3445	575	C	Perris EB off-ramp	Diverge	2780	515	B	3822	708	C	Redlands EB off-ramp	Diverge	-	-	-	-	-	-
	Perris EB on-ramp	Merge	-	-	-	-	-	-	Perris EB on-ramp	Merge	2092	1053	C	2870	1317	C	Perris EB on-ramp	Merge	2265	737	B	3114	1013	C	Redlands EB on-ramp	Merge	-	-	-	-	-	-
	Perris WB off-ramp	Diverge	-	-	-	-	-	-	Perris WB off-ramp	Diverge	3818	1160	C	3547	1197	C	Perris WB off-ramp	Diverge	3669	900	C	3377	829	C	Redlands WB off-ramp	Diverge	-	-	-	-	-	-
	Perris WB on-ramp	Merge	-	-	-	-	-	-	Perris WB on-ramp	Merge	2658	405	B	2350	469	B	Perris WB on-ramp	Merge	2769	629	C	2548	579	B	Redlands WB on-ramp	Merge	-	-	-	-	-	-
	Redlands Avenue and MCP								**Redlands Avenue and MCP**								**Redlands Avenue and MCP**								**Redlands Avenue and MCP**							
	Redlands EB off-ramp	Diverge	-	-	-	-	-	-	Redlands EB off-ramp	Diverge	-	-	-	-	-	-	Redlands EB off-ramp	Diverge	-	-	-	-	-	-	Redlands EB off-ramp	Diverge	2743	392	B	3772	545	C
	Redlands EB on-ramp	Merge	-	-	-	-	-	-	Redlands EB on-ramp	Merge	-	-	-	-	-	-	Redlands EB on-ramp	Merge	-	-	-	-	-	-	Redlands EB on-ramp	Merge	2351	657	B	3227	822	C
	Redlands WB off-ramp	Diverge	-	-	-	-	-	-	Redlands WB off-ramp	Diverge	-	-	-	-	-	-	Redlands WB off-ramp	Diverge	-	-	-	-	-	-	Redlands WB off-ramp	Diverge	3693	724	C	3388	747	C
	Redlands WB on-ramp	Merge	-	-	-	-	-	-	Redlands WB on-ramp	Merge	-	-	-	-	-	-	Redlands WB on-ramp	Merge	-	-	-	-	-	-	Redlands WB on-ramp	Merge	2969	384	C	2641	445	B
	Evans Road and MCP								**Evans Road and MCP**								**Evans Road and MCP**								**Evans Road and MCP**							
	Evans EB off-ramp	Diverge	-	-	-	-	-	-	Evans EB off-ramp	Diverge	3145	705	C	4187	823	C	Evans EB off-ramp	Diverge	3002	634	B	4127	871	C	Evans EB off-ramp	Diverge	3008	483	B	4049	563	C
	Evans EB on-ramp	Merge	-	-	-	-	-	-	Evans EB on-ramp	Merge	2440	575	B	3364	919	C	Evans EB on-ramp	Merge	2368	618	B	3256	849	C	Evans EB on-ramp	Merge	2526	340	B	3486	454	C
	Evans WB off-ramp	Diverge	-	-	-	-	-	-	Evans WB off-ramp	Diverge	3633	684	C	3437	940	C	Evans WB off-ramp	Diverge	3650	755	C	3359	695	C	Evans WB off-ramp	Diverge	3501	403	C	3224	554	C
	Evans WB on-ramp	Merge	-	-	-	-	-	-	Evans WB on-ramp	Merge	2949	869	C	2497	1050	C	Evans WB on-ramp	Merge	2895	774	C	2664	713	C	Evans WB on-ramp	Merge	3098	595	C	2670	718	C
	Ramona Expressway and MCP								**Ramona Expressway and MCP**								**Ramona Expressway and MCP**								**Ramona Expressway and MCP**							
	Ramona EB off-ramp	Diverge	-	-	-	-	-	-	Ramona EB off-ramp	Diverge	3017	72	B	4134	99	C	Ramona EB off-ramp	Diverge	2986	158	B	4105	218	C	Ramona EB off-ramp	Diverge	2866	230	B	3940	317	C
	Ramona EB on-ramp	Merge	-	-	-	-	-	-	Ramona EB on-ramp	Merge	2945	417	C	4035	574	C	Ramona EB on-ramp	Merge	2828	539	C	3887	741	C	Ramona EB on-ramp	Merge	2636	741	C	3623	1020	D
	Ramona WB off-ramp	Diverge	-	-	-	-	-	-	Ramona WB off-ramp	Diverge	4056	511	C	3826	470	C	Ramona WB off-ramp	Diverge	4114	658	C	3787	606	C	Ramona WB off-ramp	Diverge	4126	907	C	3799	834	C
	Ramona WB on-ramp	Merge	-	-	-	-	-	-	Ramona WB on-ramp	Merge	3545	61	C	3356	81	B	Ramona WB on-ramp	Merge	3456	194	C	3181	178	B	Ramona WB on-ramp	Merge	3219	282	C	2965	259	B
	Bernasconi Road and MCP								**Bernasconi Road and MCP**								**Bernasconi Road and MCP**								**Bernasconi Road and MCP**							
	Bernasconi EB off-ramp	Diverge	-	-	-	-	-	-	Bernasconi EB off-ramp	Diverge	3362	274	C	4609	376	C	Bernasconi EB off-ramp	Diverge	3367	274	C	4628	376	C	Bernasconi EB off-ramp	Diverge	3377	274	C	4643	376	C
	Bernasconi EB on-ramp	Merge	-	-	-	-	-	-	Bernasconi EB on-ramp	Merge	3088	321	C	4233	295	C	Bernasconi EB on-ramp	Merge	3093	321	C	4252	295	C	Bernasconi EB on-ramp	Merge	3103	321	C	4267	295	C
	Bernasconi WB off-ramp	Diverge	-	-	-	-	-	-	Bernasconi WB off-ramp	Diverge	4005	283	C	3882	264	C	Bernasconi WB off-ramp	Diverge	4063	283	C	3843	364	C	Bernasconi WB off-ramp	Diverge	4075	283	C	3855	364	C
	Bernasconi WB on-ramp	Merge	-	-	-	-	-	-	Bernasconi WB on-ramp	Merge	3722	334	C	3618	308	C	Bernasconi WB on-ramp	Merge	3780	334	C	3479	308	C	Bernasconi WB on-ramp	Merge	3792	334	C	3491	308	C
	Reservoir Avenue and MCP								**Reservoir Avenue and MCP**								**Reservoir Avenue and MCP**								**Reservoir Avenue and MCP**							
	Reservoir EB off-ramp	Diverge	-	-	-	-	-	-	Reservoir EB off-ramp	Diverge	3409	437	C	4528	450	C	Reservoir EB off-ramp	Diverge	3414	388	C	4547	534	C	Reservoir EB off-ramp	Diverge	3424	517	C	4562	533	C
	Reservoir EB on-ramp	Merge	-	-	-	-	-	-	Reservoir EB on-ramp	Merge	2972	220	B	4078	278	C	Reservoir EB on-ramp	Merge	3026	261	B	4013	241	C	Reservoir EB on-ramp	Merge	2907	290	B	4029	367	C
	Reservoir WB off-ramp	Diverge	-	-	-	-	-	-	Reservoir WB off-ramp	Diverge	3841	180	C	3635	248	C	Reservoir WB off-ramp	Diverge	3803	214	C	3700	294	C	Reservoir WB off-ramp	Diverge	3906	238	C	3596	327	C
	Reservoir WB on-ramp	Merge	-	-	-	-	-	-	Reservoir WB on-ramp	Merge	3661	344	C	3387	495	C	Reservoir WB on-ramp	Merge	3589	474	C	3406	437	C	Reservoir WB on-ramp	Merge	3668	407	C	3269	586	C
	Town Center Boulevard and MCP								**Town Center Boulevard and MCP**								**Town Center Boulevard and MCP**								**Town Center Boulevard and MCP**							
	Town Center EB off-ramp	Diverge	-	-	-	-	-	-	Town Center EB off-ramp	Diverge	3192	966	C	4356	1160	D	Town Center EB off-ramp	Diverge	3287	911	C	4254	1252	C	Town Center EB off-ramp	Diverge	3197	974	C	4396	1169	D
	Town Center EB on-ramp	Merge	-	-	-	-	-	-	Town Center EB on-ramp	Merge	2226	205	B	3196	186	B	Town Center EB on-ramp	Merge	2376	223	B	3002	205	B	Town Center EB on-ramp	Merge	2223	202	B	3227	186	B
	Town Center WB off-ramp	Diverge	-	-	-	-	-	-	Town Center WB off-ramp	Diverge	2869	166	B	2840	228	B	Town Center WB off-ramp	Diverge	2872	182	B	2925	250	B	Town Center WB off-ramp	Diverge	2925	166	B	2793	228	B
	Town Center WB on-ramp	Merge	-	-	-	-	-	-	Town Center WB on-ramp	Merge	2703	1138	C	2612	1023	C	Town Center WB on-ramp	Merge	2690	1113	C	2675	1025	C	Town Center WB on-ramp	Merge	2759	1147	C	2565	1031	C

Table 3.6.J 2040 Freeway Ramps Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

	2040 No Build								2040 Alternative 4 Modified								2040 Alternative 5 Modified								2040 Alternative 9 Modified							
	Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour		
			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS
MCP	**Park Center Boulevard and MCP**								**Park Center Boulevard and MCP**								**Park Center Boulevard and MCP**								**Park Center Boulevard and MCP**							
	Park Center EB off-ramp	Diverge	-	-	-	-	-	-	Park Center EB off-ramp	Diverge	2431	288	B	3382	396	C	Park Center EB off-ramp	Diverge	2599	301	B	3207	414	C	Park Center EB off-ramp	Diverge	2425	295	B	3413	406	C
	Park Center EB on-ramp	Merge	-	-	-	-	-	-	Park Center EB on-ramp	Merge	2413	554	B	2986	510	C	Park Center EB on-ramp	Merge	2298	561	B	2793	517	C	Park Center EB on-ramp	Merge	2130	554	B	3007	510	C
	Park Center WB off-ramp	Diverge	-	-	-	-	-	-	Park Center WB off-ramp	Diverge	2971	454	B	3140	624	C	Park Center WB off-ramp	Diverge	2963	459	B	3218	632	C	Park Center WB off-ramp	Diverge	3017	454	B	3085	624	C
	Park Center WB on-ramp	Merge	-	-	-	-	-	-	Park Center WB on-ramp	Merge	2517	352	B	2516	324	B	Park Center WB on-ramp	Merge	2504	368	B	2586	339	B	Park Center WB on-ramp	Merge	2563	362	B	2461	332	B
	Warren Road and MCP								**Warren Road and MCP**								**Warren Road and MCP**								**Warren Road and MCP**							
	Warren EB off-ramp	Diverge	-	-	-	-	-	-	Warren EB off-ramp	Diverge	2697	807	B	3496	986	C	Warren EB off-ramp	Diverge	2859	956	B	3310	1167	C	Warren EB off-ramp	Diverge	2684	975	B	3517	1191	C
	Warren EB on-ramp	Merge	-	-	-	-	-	-	Warren EB on-ramp	Merge	1890	246	B	2510	427	B	Warren EB on-ramp	Merge	1903	246	B	2143	427	B	Warren EB on-ramp	Merge	1709	247	B	2326	427	B
	Warren WB off-ramp	Diverge	-	-	-	-	-	-	Warren WB off-ramp	Diverge	2460	202	B	2498	277	B	Warren WB off-ramp	Diverge	2321	202	B	2407	277	B	Warren WB off-ramp	Diverge	2356	202	B	2250	277	B
	Warren WB on-ramp	Merge	-	-	-	-	-	-	Warren WB on-ramp	Merge	2258	713	B	2221	919	B	Warren WB on-ramp	Merge	2119	844	B	2130	1088	C	Warren WB on-ramp	Merge	2154	861	B	1973	1112	B
I-215	**D Street and I-215**								**D Street and I-215**								**D Street and I-215**								**D Street and I-215**							
	Northbound Nuevo to D Street	Weave	7834	-	E	7459	-	D	Northbound Nuevo to D Street	Weave	6679	-	D	6906	-	D	NB Nuevo to D Street	Weave	5488	-	E	5813	-	E	NB Nuevo to D Street	Weave	6820	-	E	6793	-	D
	Southbound Nuevo to D Street	Weave	6303	-	D	8009	-	E	Southbound Nuevo to D Street	Weave	6396	-	D	8152	-	**F**	SB Nuevo to D Street	Weave	5789	-	E	7561	-	**F**	SB Nuevo to D Street	Weave	6303	-	D	8009	-	E
	Nuevo Road and I-215								**Nuevo Road and I-215**								**Nuevo Road and I-215**								**Nuevo Road and I-215**							
	Nuevo NB off-ramp	Diverge	7834	547	B	7459	752	B	Nuevo NB off-ramp	Diverge	6679	540	B	6906	430	B	Nuevo NB off-ramp	Diverge	6632	475	B	6866	379	B	Nuevo NB off-ramp	Diverge	6820	518	B	6793	413	B
	Nuevo NB on-ramp	Merge	7287	774	**F**	6707	713	**F**	Nuevo NB on-ramp	Merge	6139	1440	**F**	6476	819	**F**	Nuevo NB on-ramp	Merge	6157	1539	**F**	6487	876	**F**	Nuevo NB on-ramp	Merge	6302	784	C	6380	446	C
	Nuevo SB off-ramp	Diverge	6595	634	E	9068	871	**F**	Nuevo SB off-ramp	Diverge	6463	727	E	8546	1001	**F**	Nuevo SB off-ramp	Diverge	6567	778	E	8631	1070	**F**	Nuevo SB off-ramp	Diverge	6065	396	B	7971	545	C
	Nuevo SB on-ramp	Merge	5961	669	**F**	8197	616	**F**	Nuevo SB on-ramp	Merge	5736	660	E	7545	607	**F**	Nuevo SB on-ramp	Merge	5789	581	E	7561	534	**F**	Nuevo SB on-ramp	Merge	5669	634	E	7426	583	**F**
	MCP and I-215								**MCP and I-215**								**MCP and I-215**								**MCP and I-215**							
	I-215 NB - MCP EB off-ramp	Diverge	-	-	-	-	-	-	I-215 NB - MCP EB off-ramp	Diverge	5974	302	D	5565	416	D	I-215 NB - MCP EB off-ramp	Diverge	5376	316	B	4990	436	B	I-215 NB - MCP EB off-ramp	Diverge	5286	230	D	5026	317	D
	MCP WB - I-215 NB on-ramp	Merge	-	-	-	-	-	-	MCP WB - I-215 NB on-ramp	Merge	5826	2693	D	5219	2479	C	MCP WB - I-215 NB on-ramp	Merge	5131	3010	E	4309	2771	D	MCP WB - I-215 NB on-ramp	Merge	5337	3071	D	4769	2827	C
	I-215 SB - MCP EB off-ramp	Diverge	-	-	-	-	-	-	I-215 SB - MCP EB off-ramp	Diverge	6643	2203	C	9809	3029	**F**	I-215 SB - MCP EB off-ramp	Diverge	6133	2464	C	9341	3386	**F**	I-215 SB - MCP EB off-ramp	Diverge	6552	2513	C	9684	3455	D
	MCP WB - I-215 SB on-ramp	Merge	-	-	-	-	-	-	MCP WB - I-215 SB on-ramp	Merge	4376	370	C	6607	340	**F**	MCP WB - I-215 SB on-ramp	Merge	3911	388	B	5873	356	C	MCP WB - I-215 SB on-ramp	Merge	3983	282	B	5912	259	C
	Placentia Avenue and I-215								**Placentia Avenue and I-215**								**Placentia Avenue and I-215**								**Placentia Avenue and I-215**							
	Placentia On - Ramona Off	Weave	-	-	-	-	-	-	Placentia On - Ramona Off	Weave	5974	-	C	5565	-	C	Placentia On - Ramona Off	Weave	5131	-	D	4309	-	C	Placentia On - Ramona Off	Weave	-	-	-	-	-	-
	Placentia NB off-ramp	Diverge	-	-	-	-	-	-	Placentia NB off-ramp	Diverge	5779	613	D	5495	675	D	Placentia NB off-ramp	Diverge	5896	520	D	5563	573	D	Placentia NB off-ramp	Diverge	5056	439	D	4709	604	D
	Placentia NB on-ramp	Merge	-	-	-	-	-	-	Placentia NB on-ramp	Merge	5166	808	D	4820	745	D	Placentia NB on-ramp	Merge	5060	755	C	4554	696	D	Placentia NB on-ramp	Merge	4617	720	D	4105	664	D
	Placentia SB off-ramp	Diverge	-	-	-	-	-	-	Placentia SB off-ramp	Diverge	4746	635	B	6947	910	**F**	Placentia SB off-ramp	Diverge	4505	594	C	6724	851	D	Placentia SB off-ramp	Diverge	4039	593	B	6229	811	D
	Placentia SB on-ramp	Merge	-	-	-	-	-		Placentia SB on-ramp	Merge	4111	552	C	6037	709	**F**	Placentia SB on-ramp	Merge	4299	468	C	6229	602	**F**	Placentia SB on-ramp	Merge	3446	537	C	5418	494	D
	Cajalco Road/Ramona Expressway and I-215								**Cajalco Road/Ramona Expressway and I-215**								**Cajalco Road/Ramona Expressway and I-215**								**Cajalco Road/Ramona Expressway and I-215**							
	Ramona NB off-ramp	Diverge	6261	576	D	5620	792	D	Ramona NB off-ramp	Diverge	5672	605	D	5149	832	D	Ramona NB off-ramp	Diverge	5815	684	B	5250	941	B	Ramona NB off-ramp	Diverge	8408	871	B	7596	1198	B
	Ramona NB on-ramp	Merge	5685	1416	**F**	4828	1301	**F**	Ramona NB on-ramp	Merge	5067	759	D	4317	902	D	Ramona NB on-ramp	Merge	8141	496	D	7080	727	C	Ramona NB on-ramp	Merge	7537	890	C	6398	1058	C
	Cajalco SB off-ramp	Diverge	5382	1291	D	8204	1584	**F**	Cajalco SB off-ramp	Diverge	4440	803	C	6780	853	D	Cajalco SB off-ramp	Diverge	6739	606	D	9941	600	E	Cajalco SB off-ramp	Diverge	6428	941	D	9704	1000	**F**
	Cajalco SB on-ramp	Merge	4091	704	D	6620	648	**F**	Cajalco SB on-ramp	Merge	3637	739	C	5927	680	E	Cajalco SB on-ramp	Merge	3669	836	B	5955	769	C	Cajalco SB on-ramp	Merge	5487	1065	C	8704	980	D

Table 3.6.J 2040 Freeway Ramps Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

	2040 No Build								2040 Alternative 4 Modified								2040 Alternative 5 Modified								2040 Alternative 9 Modified							
	Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour		
			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS
I-215	**Harley Knox Boulevard and I-215**								**Harley Knox Boulevard and I-215**								**Harley Knox Boulevard and I-215**								**Harley Knox Boulevard and I-215**							
	Harley Knox NB off-ramp	Diverge	7101	519	**F**	6129	478	D	Harley Knox NB off-ramp	Diverge	8519	413	E	7698	514	D	Harley Knox NB off-ramp	Diverge	8637	443	**F**	7807	552	E	Harley Knox NB off-ramp	Diverge	8427	558	E	7456	518	D
	Harley Knox NB on-ramp	Merge	6582	972	**F**	5651	1159	**F**	Harley Knox NB on-ramp	Merge	8106	578	C	7184	802	C	Harley Knox NB on-ramp	Merge	8194	582	**F**	7255	822	E	Harley Knox NB on-ramp	Merge	7869	628	C	6938	871	C
	Harley Knox SB off-ramp	Diverge	5854	897	D	8724	1104	**F**	Harley Knox SB off-ramp	Diverge	6896	705	D	9995	656	**F**	Harley Knox SB off-ramp	Diverge	6974	720	D	10098	662	**F**	Harley Knox SB off-ramp	Diverge	6738	766	D	9783	713	**F**
	Harley Knox SB on-ramp	Merge	4957	425	D	7620	584	**F**	Harley Knox SB on-ramp	Merge	6191	452	C	9339	470	**F**	Harley Knox SB on-ramp	Merge	6254	485	C	9436	505	**F**	Harley Knox SB on-ramp	Merge	5972	456	C	9070	634	**F**
	Van Buren Boulevard and I-215								**Van Buren Boulevard and I-215**								**Van Buren Boulevard and I-215**								**Van Buren Boulevard and I-215**							
	Van Buren NB off-ramp	Diverge	7554	958	**F**	6810	883	**F**	Van Buren NB off-ramp	Diverge	8684	1368	**F**	7986	1399	**F**	Van Buren NB off-ramp	Diverge	8776	1441	C	8077	1474	C	Van Buren NB off-ramp	Diverge	8497	1286	C	7809	1315	B
	Van Buren EB-NB on-ramp	Merge	6596	616	**F**	5927	567	E	Van Buren EB-NB on-ramp	Merge	7316	533	**F**	6587	514	**F**	Van Buren EB-NB on-ramp	Merge	7335	552	**F**	6603	533	**F**	Van Buren EB-NB on-ramp	Merge	7211	572	**F**	6494	551	**F**
	Van Buren WB-NB on-ramp	Merge	7212	246	**F**	6494	227	**F**	Van Buren WB-NB on-ramp	Merge	7849	110	**F**	7101	80	**F**	Van Buren WB-NB on-ramp	Merge	7887	116	**F**	7136	84	**F**	Van Buren WB-NB on-ramp	Merge	7783	123	**F**	7045	89	**F**
	Van Buren SB off-ramp	Diverge	5774	706	D	8615	970	**F**	Van Buren SB off-ramp	Diverge	6183	526	D	9181	723	**F**	Van Buren SB off-ramp	Diverge	6217	548	D	9232	753	**F**	Van Buren SB off-ramp	Diverge	6142	569	D	9120	782	**F**
	Van Buren SB on-ramp	Merge	5068	786	D	7645	1079	**F**	Van Buren SB on-ramp	Merge	5657	1239	D	8458	1537	**F**	Van Buren SB on-ramp	Merge	5669	1305	D	8479	1619	**F**	Van Buren SB on-ramp	Merge	5573	1165	D	8338	1445	**F**
	Cactus Avenue and I-215								**Cactus Avenue and I-215**								**Cactus Avenue and I-215**								**Cactus Avenue and I-215**							
	Cactus NB off-ramp	Diverge	7458	910	**F**	6721	769	**F**	Cactus NB off-ramp	Diverge	7569	746	**F**	7181	942	**F**	Cactus NB off-ramp	Diverge	8003	746	**F**	7220	942	**F**	Cactus NB off-ramp	Diverge	7906	746	**F**	7134	942	**F**
	Cactus EB-NB on-ramp	Merge	6548	316	**F**	5952	226	D	Cactus EB-NB on-ramp	Merge	7213	216	**F**	6239	297	E	Cactus EB-NB on-ramp	Merge	7257	216	**F**	6278	297	E	Cactus EB-NB on-ramp	Merge	7160	216	**F**	6192	297	**F**
	Cactus WB-NB on-ramp	Merge	6864	453	**F**	6178	414	E	Cactus WB-NB on-ramp	Merge	7429	346	**F**	6536	475	**F**	Cactus WB-NB on-ramp	Merge	7473	346	**F**	6575	475	**F**	Cactus WB-NB on-ramp	Merge	7376	346	**F**	6489	475	**F**
	Cactus SB-WB off-ramp	Diverge	5659	431	D	8456	485	**F**	Cactus SB-WB off-ramp	Diverge	6031	422	D	8973	389	**F**	Cactus SB-WB off-ramp	Diverge	6065	422	D	9024	389	**F**	Cactus SB-WB off-ramp	Diverge	5990	422	D	8912	389	**F**
	Cactus SB-EB off-ramp	Diverge	5228	264	D	7971	297	**F**	Cactus SB-EB off-ramp	Diverge	5609	264	D	8584	243	**F**	Cactus SB-EB off-ramp	Diverge	5643	264	D	8635	243	**F**	Cactus SB-EB off-ramp	Diverge	5568	264	D	8523	243	**F**
	Cactus SB on-ramp	Merge	4964	810	D	7674	941	**F**	Cactus SB on-ramp	Merge	5345	838	E	8341	840	**F**	Cactus SB on-ramp	Merge	5379	838	E	8392	840	**F**	Cactus SB on-ramp	Merge	5304	838	E	8280	840	**F**
	Alessandro Boulevard and I-215								**Alessandro Boulevard and I-215**								**Alessandro Boulevard and I-215**								**Alessandro Boulevard and I-215**							
	Alessando NB off-ramp	Diverge	7317	824	**F**	6592	1001	E	Alessando NB off-ramp	Diverge	7775	1021	**F**	7011	940	**F**	Alessando NB off-ramp	Diverge	7819	1021	**F**	7050	940	**F**	Alessando NB off-ramp	Diverge	7722	1021	**F**	6964	940	**F**
	Alessando NB on-ramp	Merge	6493	533	**F**	5591	733	E	Alessando NB on-ramp	Merge	6754	669	**F**	6071	616	**F**	Alessando NB on-ramp	Merge	6798	669	**F**	6110	616	**F**	Alessando NB on-ramp	Merge	6701	669	**F**	6024	616	**F**
	Alessandro SB off-ramp	Diverge	5422	652	D	8130	599	**F**	Alessando SB off-ramp	Diverge	5743	554	D	8577	752	**F**	Alessando SB off-ramp	Diverge	5777	544	D	8628	752	**F**	Alessando SB off-ramp	Diverge	5702	554	D	8516	752	**F**
	Alessandro EB-SB on-ramp	Merge	5011	648	D	7782	674	**F**	Alessando EB-SB on-ramp	Merge	5443	588	D	8171	802	**F**	Alessando EB-SB on-ramp	Merge	5477	588	D	8222	802	**F**	Alessando EB-SB on-ramp	Merge	5402	588	D	8110	802	**F**
	Alessandro WB-SB on-ramp	Merge	4770	241	D	7531	251	**F**	Alessando WB-SB on-ramp	Merge	5189	254	D	7825	346	**F**	Alessando WB-SB on-ramp	Merge	5223	254	D	7876	346	**F**	Alessando WB-SB on-ramp	Merge	5148	254	D	7764	346	**F**
I-15	**Temescal Canyon Road and I-15**								**Temescal Canyon Road and I-15**								**Temescal Canyon Road and I-15**								**Temescal Canyon Road and I-15**							
	Temescal NB off-ramp	Diverge	7533	360	D	7617	495	D	Temescal NB off-ramp	Diverge	7533	360	D	7617	495	D	Temescal NB off-ramp	Diverge	7533	360	D	7617	495	D	Temescal NB off-ramp	Diverge	7533	360	D	7617	495	D
	Temescal NB on-ramp	Merge	7173	739	C	7122	680	C	Temescal NB on-ramp	Merge	7173	739	C	7122	680	C	Temescal NB on-ramp	Merge	7173	739	C	7122	680	C	Temescal NB on-ramp	Merge	7173	739	C	7122	680	C
	Temescal SB off-ramp	Diverge	6934	605	D	8901	832	**F**	Temescal SB off-ramp	Diverge	6934	605	D	8901	832	**F**	Temescal SB off-ramp	Diverge	6936	605	D	8901	832	**F**	Temescal SB off-ramp	Diverge	6936	605	D	8901	832	**F**
	Temescal SB on-ramp	Merge	6329	440	C	8069	405	C	Temescal SB on-ramp	Merge	6329	440	C	8069	405	C	Temescal SB on-ramp	Merge	6331	440	C	8069	405	C	Temescal SB on-ramp	Merge	6331	440	C	8069	405	C
	Weirick Road and I-15								**Weirick Road and I-15**								**Weirick Road and I-15**								**Weirick Road and I-15**							
	Weirick NB off-ramp	Diverge	7912	321	D	7802	446	D	Weirick NB off-ramp	Diverge	7912	324	D	7802	446	D	Weirick NB off-ramp	Diverge	7912	324	D	7802	446	D	Weirick NB off-ramp	Diverge	7912	324	D	7802	446	D
	Weirick NB on-ramp	Merge	7588	1100	C	7356	1013	C	Weirick NB on-ramp	Merge	7588	1100	C	7356	1013	C	Weirick NB on-ramp	Merge	7588	1100	C	7356	1013	C	Weirick NB on-ramp	Merge	7588	1100	C	7356	1013	C
	Weirick SB off-ramp	Diverge	7438	900	D	9774	1238	**F**	Weirick SB off-ramp	Diverge	7438	900	D	9774	1238	**F**	Weirick SB off-ramp	Diverge	7440	900	D	9774	1238	**F**	Weirick SB off-ramp	Diverge	7440	900	D	9774	1238	**F**
	Weirick SB on-ramp	Merge	6538	396	C	8536	365	**F**	Weirick SB on-ramp	Merge	6538	396	C	8536	365	**F**	Weirick SB on-ramp	Merge	6540	396	C	8536	365	**F**	Weirick SB on-ramp	Merge	6540	396	C	8536	365	**F**

Table 3.6.J 2040 Freeway Ramps Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

	2040 No Build								2040 Alternative 4 Modified								2040 Alternative 5 Modified								2040 Alternative 9 Modified							
	Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour			Ramp	Type of Analysis	AM Peak Hour			PM Peak Hour		
			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS			Mainline Volume	Ramp Volume	LOS	Mainline Volume	Ramp Volume	LOS
I-15	**Cajalco Road and I-15**								**Cajalco Road and I-15**								**Cajalco Road and I-15**								**Cajalco Road and I-15**							
	Cajalco NB off-ramp	Diverge	8688	821	**F**	8369	1129	**F**	Cajalco NB off-ramp	Diverge	8688	821	**F**	8369	1129	**F**	Cajalco NB off-ramp	Diverge	8688	821	**F**	8369	1129	**F**	Cajalco NB off-ramp	Diverge	8688	821	**F**	8369	1129	**F**
	Cajalco EB - NB on-ramp	Merge	7867	616	C	7240	567	C	Cajalco EB - NB on-ramp	Merge	7867	616	C	7240	567	C	Cajalco EB - NB on-ramp	Merge	7867	616	C	7240	567	C	Cajalco EB - NB on-ramp	Merge	7867	616	C	7240	567	C
	Cajalco WB - NB on-ramp	Merge	8483	1038	**F**	7807	956	C	Cajalco WB - NB on-ramp	Merge	8483	1086	**F**	7807	1001	C	Cajalco WB - NB on-ramp	Merge	8483	1079	**F**	7807	993	C	Cajalco WB - NB on-ramp	Merge	8483	1088	**F**	7807	1005	C
	Cajalco SB off-ramp	Diverge	7789	1354	**F**	10712	1861	**F**	Cajalco SB off-ramp	Diverge	7829	1394	**F**	10766	1915	**F**	Cajalco SB off-ramp	Diverge	7822	1385	**F**	10756	1905	**F**	Cajalco SB off-ramp	Diverge	7833	1396	**F**	10771	1920	**F**
	Cajalco SB on-ramp	Merge	6435	1003	C	8851	923	**F**	Cajalco SB on-ramp	Merge	6435	1003	C	8851	923	**F**	Cajalco SB on-ramp	Merge	6437	1003	C	8851	923	**F**	Cajalco SB on-ramp	Merge	6437	1003	C	8851	923	**F**
	El Cerrito Road and I-15								**El Cerrito Road and I-15**								**El Cerrito Road and I-15**								**El Cerrito Road and I-15**							
	El Cerrito NB off-ramp	Diverge	9521	497	**F**	8763	683	**F**	El Cerrito NB off-ramp	Diverge	9569	497	**F**	8808	683	**F**	El Cerrito NB off-ramp	Diverge	9562	497	**F**	8800	683	**F**	El Cerrito NB off-ramp	Diverge	9571	497	**F**	8812	683	**F**
	El Cerrito NB on-ramp	Merge	9024	815	**F**	8080	656	C	El Cerrito NB on-ramp	Merge	9072	815	**F**	8125	656	C	El Cerrito NB on-ramp	Merge	9065	815	**F**	8117	656	C	El Cerrito NB on-ramp	Merge	9074	815	**F**	8129	656	C
	El Cerrito SB off-ramp	Diverge	7765	583	D	10955	802	**F**	El Cerrito SB off-ramp	Diverge	7805	583	D	10009	802	**F**	El Cerrito SB off-ramp	Diverge	7798	583	D	10999	802	**F**	El Cerrito SB off-ramp	Diverge	7809	583	D	11014	802	**F**
	El Cerrito SB on-ramp	Merge	7182	607	C	10153	559	**F**	El Cerrito SB on-ramp	Merge	7222	607	C	10207	559	**F**	El Cerrito SB on-ramp	Merge	7215	607	C	10197	559	**F**	El Cerrito SB on-ramp	Merge	7226	607	C	10212	559	**F**
	Ontario Road and I-15								**Ontario Road and I-15**								**Ontario Road and I-15**								**Ontario Road and I-15**							
	Ontario NB off-ramp	Diverge	9143	986	**F**	7809	907	E	Ontario NB off-ramp	Diverge	9191	986	**F**	7854	907	E	Ontario NB off-ramp	Diverge	9184	986	**F**	7846	907	E	Ontario NB off-ramp	Diverge	9193	986	**F**	7858	907	E
	Ontario NB on-ramp	Merge	8157	1125	**F**	6902	1109	C	Ontario NB on-ramp	Merge	8205	1125	**F**	6947	1109	C	Ontario NB on-ramp	Merge	8198	1125	**F**	6939	1109	C	Ontario NB on-ramp	Merge	8207	1125	**F**	6951	1109	C
	Ontario SB off-ramp	Diverge	7718	1289	**F**	10455	942	**F**	Ontario SB off-ramp	Diverge	7747	1289	**F**	10509	942	**F**	Ontario SB off-ramp	Diverge	7742	1289	**F**	10499	942	**F**	Ontario SB off-ramp	Diverge	7750	1289	**F**	10514	942	**F**
	Ontario SB on-ramp	Merge	6429	806	C	9513	1109	**F**	Ontario SB on-ramp	Merge	6458	806	C	9567	1109	**F**	Ontario SB on-ramp	Merge	6453	806	C	9557	1109	**F**	Ontario SB on-ramp	Merge	6461	806	C	9572	1109	**F**
	Magnolia Avenue and I-15								**Magnolia Avenue and I-15**								**Magnolia Avenue and I-15**								**Magnolia Avenue and I-15**							
	Magnolia NB off-ramp	Diverge	9282	1250	**F**	8011	1021	**F**	Magnolia NB off-ramp	Diverge	9330	1250	**F**	8056	1021	**F**	Magnolia NB off-ramp	Diverge	9323	1250	**F**	8048	1021	**F**	Magnolia NB off-ramp	Diverge	9332	1250	**F**	8060	1021	**F**
	Magnolia EB - NB on-ramp	Merge	8032	1203	**F**	6990	951	C	Magnolia EB - NB on-ramp	Merge	8080	1203	**F**	7035	951	C	Magnolia EB - NB on-ramp	Merge	8073	1203	**F**	7027	951	C	Magnolia EB - NB on-ramp	Merge	8082	1203	**F**	7039	951	C
	Magnolia WB - NB on-ramp	Merge	9235	601	**F**	7941	475	C	Magnolia WB - NB on-ramp	Merge	9283	601	**F**	7986	475	C	Magnolia WB-NB on-ramp	Merge	9276	601	**F**	7978	475	C	Magnolia WB-NB on-ramp	Merge	9285	601	**F**	7990	475	C
	Magnolia SB off-ramp	Diverge	9001	2190	**F**	10833	1625	**F**	Magnolia SB off-ramp	Diverge	9030	2190	**F**	10887	1625	**F**	Magnolia SB off-ramp	Diverge	9025	2190	**F**	10877	1625	**F**	Magnolia SB off-ramp	Diverge	9033	2190	**F**	10892	1625	**F**
	Magnolia SB on-ramp	Merge	6811	907	C	9208	1247	**F**	Magnolia SB on-ramp	Merge	6840	907	C	9262	1247	**F**	Magnolia SB on-ramp	Merge	6835	907	C	9252	1247	**F**	Magnolia SB on-ramp	Merge	6843	907	C	9267	1247	**F**

Source: *Traffic Technical Report* (2012).
Note: Black box ■ represents a deficient segment with an impact. **Bold** represents a deficient (LOS F) ramp.
EB = Eastbound
HOV = High Occupancy Vehicle
I-15 = Interstate 15
I-215 = Interstate 215
LOS = Level of Service
MCP = Mid County Parkway
NB = Northbound
SB = Southbound
SR-79 = State Route 79
WB = Westbound
- = Not Applicable

Table 3.6.K 2040 Freeway Mainline Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

				2040 No Build				2040 Alternative 4 Modified				2040 Alternative 5 Modified				2040 Alternative 9 Modified			
Fwy	Dir	Segment	Lane Type	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS
MCP	Eastbound	I-215 to Perris Boulevard	General Purpose	-	-	-	-	13.0	B	17.8	B	15.6	B	21.5	C	-	-	-	-
		I-215 to Redlands Avenue		-	-	-	-	-	-	-	-	-	-	-	-	15.4	B	21.2	C
		Perris Boulevard to Evans Road		-	-	-	-	17.7	B	23.5	C	16.9	B	23.2	C	-	-	-	-
		Redlands Avenue to Evans Road		-	-	-	-	-	-	-	-	-	-	-	-	16.9	B	22.7	C
		Evans Road to Ramona Expressway/Antelope Road		-	-	-	-	15.6	B	21.7	C	16.8	B	23.0	C	16.1	B	22.1	C
		Ramona Expressway/Antelope Road to Bernasconi Road		-	-	-	-	17.4	B	24.7	C	18.9	C	26.1	D	19.0	C	26.2	D
		Bernasconi Road to Reservoir Avenue		-	-	-	-	17.6	B	24.2	C	19.2	C	25.6	C	19.2	C	25.7	C
		Reservoir Avenue to Town Center Boulevard		-	-	-	-	17.8	B	24.3	C	18.4	C	23.9	C	18.0	B	24.7	C
		Town Center Boulevard to Park Center Boulevard		-	-	-	-	13.5	B	18.8	C	14.6	B	18.0	B	13.6	B	19.2	C
		Park Center Boulevard to Warren Road		-	-	-	-	15.0	B	19.5	C	16.0	B	18.6	C	15.1	B	19.8	C
		Warren Road to SR-79		-	-	-	-	11.9	B	16.4	B	12.1	B	14.4	B	11.0	A	15.5	B
	Westbound	SR-79 Warren Road	General Purpose	-	-	-	-	13.7	B	13.9	B	13	B	13.5	B	13.2	B	12.6	B
		Warren Road to Park Center Boulevard		-	-	-	-	16.6	B	17.5	B	16.6	B	18.1	C	16.9	B	17.3	B
		Park Center Boulevard to Town Center Boulevard		-	-	-	-	16.0	B	15.8	B	16.1	B	16.4	B	16.4	B	15.7	B
		Town Center Boulevard to Reservoir Avenue		-	-	-	-	21.4	C	20.2	C	21.3	C	20.8	C	21.9	C	20.2	C
		Reservoir Avenue to Bernasconi Road		-	-	-	-	22.3	C	21.6		22.8	C	21.6	C	22.9	C	21.6	C
		Bernasconi Road to Ramona Expressway/Antelope Road		-	-	-	-	22.6	C	21.3	C	23.1	C	21.3	C	23.2	C	21.3	C
		Ramona Expressway/Antelope Road to Evans Road		-	-	-	-	20.2	C	19.2	C	20.5	C	18.9	C	19.7	C	18.1	C
		Evans Road to Redlands Avenue		-	-	-	-	-	-	-	-	-	-	-	-	20.7	C	19	C
		Evans Road to Perris Boulevard		-	-	-	-	21.4	C	19.9	C	20.6	C	19	C	-	-	-	-
		Redlands Avenue to I-215		-	-	-	-	-	-	-	-	-	-	-	-	18.8	C	17.3	B
		Perris Boulevard to I-215		-	-	-	-	17.1	B	15.7	B	19.1	C	17.6	B	-	-	-	-
I-15	Northbound	South of Temescal Canyon Road	General Purpose	33.4	D	34	D	33.4	D	34.0	D	33.4	D	34.0	D	33.4	D	34.0	D
		Temescal Canyon Road to Weirick Road		36.4	E	35.5	E	36.4	E	35.5	E	36.4	E	35.5	E	36.4	E	35.5	E
		Weirick Road to Cajalco Road		44.9	E	41.0	E	44.9	E	41.0	E	44.9	E	41.0	E	44.9	E	41.0	E
		Cajalco Road to El Cerrito Road		49.3	**F**	45.4	**F**	49.6	**F**	45.6	**F**	49.5	**F**	45.6	**F**	49.6	**F**	45.6	**F**
		El Cerrito Road to Ontario Avenue		47.3	**F**	35.5	E	47.6	**F**	35.9	E	47.6	**F**	35.9	E	47.6	**F**	35.9	E
		Ontario Avenue to Magnolia Avenue		48.1	**F**	37.3	E	48.3	**F**	37.7	E	48.3	**F**	37.7	E	48.3	**F**	37.8	E
		Magnolia Avenue to SR-91		50.9	**F**	41.5	E	51.2	**F**	42.1	E	51.1	**F**	42.0	E	51.2	**F**	42.1	E
		Temescal Canyon Road to Ontario Avenue	HOV	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D
		Ontario Avenue to SR-91		32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D

Table 3.6.K 2040 Freeway Mainline Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

				2040 No Build				2040 Alternative 4 Modified				2040 Alternative 5 Modified				2040 Alternative 9 Modified			
Fwy	Dir	Segment	Lane Type	AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
				Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS	Density	LOS
I-15	Southbound	SR-91 to Magnolia Avenue	General Purpose	46.6	F	56.1	F	46.8	F	56.4	F	46.7	F	56.3	F	46.8	F	56.4	F
		Magnolia Avenue to Ontario Avenue		34.8	D	54.1	F	35.0	E	54.4	F	35.0	D	54.4	F	35.1	E	54.4	F
		Ontario Avenue to El Cerrito Road		35.2	E	56.7	F	35.5	E	57.0	F	35.4	E	57.0	F	35.5	E	57.0	F
		El Cerrito Road to Cajalco Road		35.4	E	55.5	F	35.7	E	55.8	F	35.6	E	55.7	F	35.7	E	55.8	F
		Cajalco Road to Weirick Road		32.7	D	50.6	F	32.7	D	50.6	F	32.7	D	50.6	F	32.7	D	50.6	F
		Weirick Road to Temescal Canyon Road		29.5	D	46.1	F	29.5	D	46.1	F	29.5	D	46.1	F	29.5	D	46.1	F
		South of Temescal Canyon Road		28.6	D	42.2	E	28.6	D	42.2	E	28.6	D	42.2	E	28.6	D	42.2	E
		SR-91 to Ontario Avenue	HOV	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D
		Ontario Avenue to Temescal Canyon Road		32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D
I-215	Northbound	Nuevo Road on-ramp to Placentia Avenue off-ramp	General Purpose	-	-	-	-	35.3	E	32.5	D	37.9	E	34.1	D	-	-	-	-
		Nuevo Road on-ramp to Ramona Expressway off-ramp		41.4	E	33.6	D	-	-	-	-	-	-	-	-	-	-	-	-
		Nuevo Road on-ramp to MCP eastbound off-ramp		-	-	-	-	-	-	-	-	-	-	-	-	21.8	C	20.7	C
		Placentia Avenue off-ramp to MCP eastbound off-ramp		-	-	-	-	32.2	D	32.2	D	32.3	D	29.2	D	31.1	D	27.0	D
		Placentia Avenue on-ramp to Ramona Expressway off-ramp		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MCP eastbound off-ramp to Ramona Expressway off-ramp		-	-	-	-	34.2	D	29.6	D	-	-	-	-	-	-	-	-
		MCP eastbound off-ramp to Placentia Avenue off-ramp		-	-	-	-	-	-	-	-	-	-	-	-	29.0	D	26.6	D
		Ramona Expressway on-ramp to MCP westbound on-ramp		-	-	-	-	23.0	C	20.3	C	-	-	-	-	-	-	-	-
		Ramona Expressway on-ramp to Harley Knox Boulevard off-ramp		49.4	F	39.5	E	-	-	-	-	44.3	E	35.5	E	41.7	E	32.8	D
		MCP westbound on-ramp to Ramona Expressway on-ramp		-	-	-	-	-	-	-	-	40.2	E	31.2	D	27.8	D	24.6	C
		MCP westbound on-ramp to Ramona Expressway off-ramp		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		MCP westbound On to Harley Knox Boulevard off-ramp		-	-	-	-	28.3	D	25.0	C	-	-	-	-	-	-	-	-
		Harley Knox Boulevard on-ramp to Van Buren off-ramp		52.5	F	47.4	F	44.9	E	37.1	E	45.4	F	37.9	E	42.5	E	35.5	E
		Van Buren Boulevard on-ramp to Cactus Avenue off-ramp		51.9	F	46.7	F	55.4	F	49.9	F	55.7	F	50.2	F	55.0	F	49.6	F
		Cactus Avenue on-ramp to Alessandro Boulevard off-ramp		50.9	F	45.8	F	54.1	F	48.8	F	54.4	F	49.0	F	53.7	F	48.4	F
		North Of Alessandro Boulevard		48.9	F	42.4	E	51.6	F	46.5	F	51.9	F	46.8	F	51.3	F	46.2	F
		Nuevo Road to Alessandro Boulevard	HOV	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D
	Southbound	North of Alessandro Boulevard	General Purpose	31.8	D	56.5	F	34.9	D	59.7	F	36.5	E	60.0	F	34.5	D	59.2	F
		Alessandro Boulevard on-ramp to Cactus Avenue off-ramp		34.0	D	58.8	F	38.2	E	62.4	F	40.3	E	62.8	F	37.7	E	62.0	F
		Cactus Avenue on-ramp to Van Buren Boulevard off-ramp		35.2	E	59.9	F	40.3	E	63.9	F	42.6	E	64.2	F	39.7	E	63.4	F
		Van Buren Boulevard on-ramp to Harley Knox Boulevard off-ramp		36.1	E	60.7	F	29.3	D	51.8	F	30.5	D	52.3	F	28.4	D	50.7	F
		Harley Knox Boulevard on-ramp to Cajalco Road off-ramp		31.5	D	57.1	F	-	-	-	-	29.1	D	51.5	F	26.8	D	50.3	F
		MCP eastbound off-ramp to Cajalco Road off-ramp		-	-	-	-	18.3	C	28.6	D	-	-	-	-	-	-	-	-

Table 3.6.K 2040 Freeway Mainline Peak-Hour LOS for MCP, I-15, and I-215 Traffic Study Area

				2040 No Build				2040 Alternative 4 Modified				2040 Alternative 5 Modified				2040 Alternative 9 Modified			
Fwy	**Dir**	**Segment**	**Lane Type**	**AM Peak Hour**		**PM Peak Hour**		**AM Peak Hour**		**PM Peak Hour**		**AM Peak Hour**		**PM Peak Hour**		**AM Peak Hour**		**PM Peak Hour**	
				Density	**LOS**	**Density**	**LOS**	**Density**	**LOS**	**Density**	**LOS**	**Density**	**LOS**	**Density**	**LOS**	**Density**	**LOS**	**Density**	**LOS**
I-215	**Southbound**	Cajalco Road on-ramp to MCP westbound on-ramp	**General Purpose**	-	-	-	-	23.1	C	44.2	E	-	-	-	-	-	-	-	-
		Cajalco Road on-ramp to MCP eastbound off-ramp		-	-	-	-	-	-	-	-	-	-	-	-	21.1	C	34.5	D
		MCP eastbound off-ramp to Placentia Avenue off-ramp		-	-	-	-	-	-	-	-	-	-	-	-	16.6	B	25.8	C
		MCP westbound on-ramp to Nuevo Road off-ramp		-	-	-	-	-	-	-	-	-	-	-	-	17.5	B	25.6	C
		Cajalco Road on-ramp to Placentia Avenue off-ramp		-	-	-	-	-	-	-	-	18.5	C	28.3	D	-	-	-	-
		Placentia Avenue off-ramp to Placentia Avenue on-ramp		-	-	-	-	-	-	-	-	-	-	-	-	19.3	C	31.8	D
		Placentia Avenue on-ramp to MCP westbound on-ramp		-	-	-		-	-	-	-	-	-	-	-	22.4	C	36.7	E
		Placentia Avenue on-ramp to Nuevo Road off-ramp		27.2	D	50.6	**F**	26.3	D	46.9	**F**	27.6	D	47.5	**F**	-	-	-	-
		Alessandro Boulevard to Nuevo Road	**HOV**	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D	32.2	D

Source: *Traffic Technical Report* (2012).
Note: **Bold** represents a deficient (LOS F) segment.
Dir = Direction
Fwy = Freeway
HOV = High Occupancy Vehicle
I-15 = Interstate 15
I-215 = Interstate 215
LOS = Level of Service
MCP = Mid County Parkway
SR-79 = State Route 79
- = Not Applicable

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Table 3.6.L Intersection Peak-Hour LOS for Horizon Year 2040 Conditions

Arterial	Intersection	Horizon Year 2040 No Build				Horizon Year 2040 Alternative 4 Modified				Horizon Year 2040 Alternative 5 Modified				Horizon Year 2040 Alternative 9 Modified			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Perris Boulevard	Perris Boulevard and Morgan Street	28.0	C	29.8	C	-	-	-	-	29.0	C	53.9	D	-	-	-	-
	Perris Boulevard and Markham Street	20.0	B	20.9	C	35.5	D	48.4	D	-	-	-	-	-	-	-	-
	Perris Boulevard and MCP westbound ramps	-	-	-	-	22.3	C	25.1	C	19.2	B	12.6	B	-	-	-	-
	Perris Boulevard and MCP eastbound Ramps	-	-	-	-	5.7	A	8.4	A	14.6	B	18.2	B	-	-	-	-
	Perris Boulevard and Ramona Expressway	41.5	D	42.2	D	53.7	D	44.2	D	-	-	-	-	-	-	-	-
	Perris Boulevard and Placentia Avenue	-	-	-	-	-	-	-	-	25.4	C	34.0	C	-	-	-	-
Redlands Avenue	Redlands Avenue and Rider Street	-	-	-	-	-	-	-	-	-	-	-	-	30.7	C	33.2	C
	Redlands Avenue and Ramona Expressway	50.0	D	71.8	E	-	-	-	-	-	-	-	-	-	-	-	-
	Redlands Avenue and MCP westbound ramps	-	-	-	-	-	-	-	-	-	-	-	-	21.5	C	25.7	C
	Redlands Avenue and MCP eastbound ramps	-	-	-	-	-	-	-	-	-	-	-	-	16.8	B	18.1	B
	Redlands Avenue and Placentia Avenue	-	-	-	-	-	-	-	-	-	-	-	-	27.2	C	29.7	C
Evans Road	Evans Road and Marbella Gate	2.9	A	2.0	A	-	-	-	-	-	-	-	-	-	-	-	-
	Evans Road and Ramona Expressway	62.5	E	58.3	E	-	-	-	-	-	-	-	-	-	-	-	-
	Evans Road and Morgan Street	8.6	A	7.6	A	-	-	-	-	-	-	-	-	-	-	-	-
	Evans Road and Old Evans Road	-	-	-	-	-	-	-	-	28.6	C	25.9	C	27.4	C	24.6	C
	Evans Road and MCP westbound ramps	-	-	-	-	10.5	B	14.3	B	11.4	B	10.6	B	7.9	A	9.7	A
	Evans Road and MCP eastbound ramps	-	-	-	-	14.3	B	12.1	B	13.6	B	12.6	B	9.8	A	9.4	A
	Evans Road and Orange Avenue	-	-	-	-	34.9	C	40.4	D	34.2	C	41.5	D	34.8	C	42.4	D
Bernasconi Road	Bernasconi Road and New Street	14.4	B	15.4	B	12.0	B	12.5	B	11.3	B	12.7	B	12.6	B	12.9	B
	Bernasconi Road and Ramona Expressway	37.1	D	44.7	D	-	-	-	-	-	-	-	-	-	-	-	-
	Bernasconi Road and MCP westbound ramps	-	-	-	-	14.4	B	15.8	B	15.2	B	13.9	B	13.8	B	15.5	B
	Bernasconi Road and MCP eastbound ramps	-	-	-	-	14.9	B	17.5	B	14.9	B	12.7	B	14.9	B	14.5	B
	Bernasconi Road and Orange Avenue	26.7	C	32.3	C	33.6	C	36.0	D	33.3	C	35.6	D	33.6	C	35.5	D
Reservoir Avenue	Reservoir Avenue and Martin Street	17.2	B	16.2	B	34.9	C	41.6	D	37.8	D	41.3	D	36.6	D	37.1	D
	Reservoir Avenue and Ramona Expressway	31.5	C	33.0	C	-	-	-	-	-	-	-	-	-	-	-	-
	Reservoir Avenue and MCP westbound ramps	-	-	-	-	18.6	B	18.0	B	22.7	C	20.3	C	16.4	B	16.7	B
	Reservoir Avenue and MCP eastbound ramps	-	-	-	-	8.8	A	7.9	A	5.9	A	11.5	B	10.7	B	11.2	B
	Reservoir Avenue and 9th Street	14.4	B	13.9	B	19.9	B	19.1	B	14.1	B	13.0	B	16.0	B	16.8	B
Town Center Boulevard	Town Center Boulevard and Frontage Road	10.8	B	10.3	B	32.7	C	34.3	C	8.8	A	9.2	A	12.0	B	13.2	B
	Town Center Boulevard and MCP westbound ramps	-	-	-	-	9.0	A	7.7	A	4.9	A	5.3	A	5.9	A	5.4	A
	Town Center Boulevard and MCP eastbound ramps	-	-	-	-	23.7	C	20.7	C	22.3	C	22.9	C	21.3	C	21.0	C
	Town Center Boulevard and 5th Street	28.1	C	30.2	C	27.7	C	25.9	C	32.2	C	30.4	C	33.3	C	32.6	C
Park Center Boulevard	Park Center Boulevard and Marvin Road	31.7	C	29.4	C	33.2	C	28.5	C	34.0	C	28.0	C	33.7	C	32.3	C
	Park Center Boulevard and Ramona Expressway	32.6	C	31.3	C	-	-	-	-	-	-	-	-	-	-	-	-
	Park Center Boulevard and MCP westbound ramps					14.3	B	18.3	B	14.3	B	18.1	B	13.5	B	16.1	B
	Park Center Boulevard and MCP eastbound ramps					13.2	B	12.0	B	11.7	B	11.6	B	11.4	B	11.6	B
	Park Center Boulevard and New Street	6.9	A	7.4	A	7.8	A	7.4	A	5.1	A	5.6	A	7.8	A	8.1	A
Warren Road	Warren Road and Ramona Expressway	39.4	D	32.7	C	21.9	C	19.5	B	22.4	C	20.1	C	24.3	C	21.8	C
	Warren Road and MCP westbound ramps	-	-	-	-	5.4	A	6.5	A	5.5	A	6.1	A	5.4	A	6.3	A
	Warren Road and MCP eastbound ramps	-	-	-	-	14.7	B	15.8	B	16.3	B	16.3	B	12.6	B	11.5	B
	Warren Road and Record Road	11.7	B	12.5	B	10.2	B	11.3	B	9.9	A	11.2	B	10.1	B	11.0	B
Gilman Springs Road	Gilman Springs Road and SR-79 southbound ramps	17.7	B	22.1	C	19.1	B	17.5	B	19.1	B	17.5	B	19.0	B	17.4	B
	Gilman Springs Road and SR-79 northbound ramps	28.6	C	27.0	C	17.8	B	25.2	C	17.8	B	25.2	C	17.8	B	25.1	C
Sanderson Avenue	Sanderson Avenue and MCP	-	-	-	-	46.6	D	42.5	D	42.3	D	39.2	D	34.8	C	51.9	D
	SR-79 westbound ramps and Sanderson Avenue	-	-	-	-	24.3	C	26.4	C	24.3	C	26.4	C	24.3	C	26.4	C
	SR-79 eastbound ramps and Sanderson Avenue	-	-	-	-	9.5	A	12.0	B	9.5	A	12.0	B	9.5	A	12.0	B
	Sanderson Avenue and Cottonwood Avenue	38.0	D	37.7	D	48.6	D	41.9	D	48.6	D	41.9	D	48.6	D	41.9	D

Table 3.6.L Intersection Peak-Hour LOS for Horizon Year 2040 Conditions

Arterial	Intersection	Horizon Year 2040 No Build				Horizon Year 2040 Alternative 4 Modified				Horizon Year 2040 Alternative 5 Modified				Horizon Year 2040 Alternative 9 Modified			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Ramona Expressway	Ramona Expressway and Rider Street	-	-	-	-	18.2	B	8.2	A	18.8	B	8.2	A	38.9	D	13.5	B
	Ramona Expressway and MCP westbound ramps	-	-	-	-	9.5	A	5.5	A	10.4	B	7.0	A	13.1	B	8.2	A
	Ramona Expressway and MCP eastbound ramps	-	-	-	-	10.8	B	12.7	B	12.6	B	17.1	B	12.6	B	17.4	B
	Ramona Expressway and Orange Avenue	-	-	-	-	26.4	C	33.9	D	28.2	C	35.3	C	29.1	C	37.4	D
	Ramona Expressway and Patterson Avenue	-	-	-	-	5.5	A	5.7	A	15.0	B	20.3	C	18.0	B	26.9	C
	Ramona Expressway and Webster Avenue	31.5	C	42.4	D	32.7	C	37.1	D	31.8	C	30.6	C	40.1	D	34.9	C
	Ramona Expressway and MCP	-	-	-	-	39.0	D	53.2	D	32.8	C	50.0	D	36.6	D	48.8	D
	Ramona Expressway and SR-79 southbound ramps	28.0	C	29.7	C	-	-	-	-	-	-	-	-	-	-	-	-
	Ramona Expressway and SR-79 northbound ramps	7.1	A	15.3	B	-	-	-	-	-	-	-	-	-	-	-	-
Magnolia Avenue	Magnolia Avenue and El Sobrante Road	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**
	Magnolia Avenue and I-15 southbound ramps	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**
	Magnolia Avenue and I-15 northbound ramps	18.0	B	23.9	C	18.0	B	23.9	C	18.0	B	23.9	C	18.0	B	23.9	C
	Magnolia Avenue and El Camino Avenue	20.1	C	70.6	E	20.1	C	70.8	E	20.1	C	70.8	E	20.1	C	70.8	E
Ontario Avenue	Ontario Avenue and California Avenue	51.0	D	>80.0	**F**	51.0	D	>80.0	**F**	51.0	D	>80.0	**F**	51.0	D	>80.0	**F**
	Ontario Avenue and I-15 southbound ramps	23.4	C	15.2	B	23.4	C	15.2	B	23.4	C	15.2	B	23.4	C	15.2	B
	Ontario Avenue and I-15 northbound ramps	29.3	C	33.3	C	29.3	C	33.3	C	29.3	C	33.3	C	29.3	C	33.3	C
	Ontario Avenue and State Street	13.0	B	13.2	B	13.0	B	13.2	B	13.0	B	13.2	B	13.0	B	13.2	B
El Cerrito Road	El Cerrito Road and Bedford Canyon Road	26.7	C	28.0	C	26.7	C	28.0	C	26.7	C	28.0	C	26.7	C	28.0	C
	El Cerrito Road and I-15 southbound ramps	17.5	B	22.7	C	17.5	B	22.7	C	17.5	B	22.7	C	17.5	B	22.7	C
	El Cerrito Road and I-15 northbound ramps	35.6	D	20.8	C	35.6	D	20.8	C	35.6	D	20.8	C	35.6	D	20.8	C
	El Cerrito Road and Temescal Canyon Road	31.4	C	30.7	C	31.4	C	30.7	C	31.4	C	30.7	C	31.4	C	30.7	C
SR-79	MCP and SR-79	-	-	-	-	22.5	C	28.3	C	27.6	C	33.5	C	25.9	C	33.9	C
Cajalco Road	Cajalco Road and Bedford Canyon Road	20.1	C	31.1	C	20.1	C	30.9	C	20.2	C	31.0	C	20.1	C	30.9	C
	Cajalco Road and I-15 southbound ramps	23.9	C	23.8	C	24.3	C	24.0	C	24.3	C	23.9	C	24.2	C	24.0	C
	Cajalco Road and I-15 northbound ramps	10.5	B	14.8	B	10.8	B	15.2	B	10.8	B	15.2	B	10.8	B	15.2	B
	Cajalco Road and Temescal Canyon Road	61.4	E	>80.0	**F**	61.2	E	>80.0	**F**	60.1	E	>80.0	**F**	61.4	E	>80.0	**F**
	Eagle Valley Road and Cajalco Road	20.2	C	19.5	B	20.3	C	16.6	B	21.7	C	16.6	B	20.3	C	16.6	B
	Lake Matthews Road and Cajalco Road	11.4	B	18.0	B	11.2	B	18.0	B	12.3	B	18.1	B	11.7	B	17.7	B
	El Sobrante Road and Cajalco Road	18.7	B	15.6	B	19.0	B	16.0	B	18.9	B	16.1	B	19.2	B	16.5	B
	Wood Road and Cajalco Road	22.7	C	31.2	C	23.1	C	23.3	C	22.9	C	24.8	C	22.7	C	23.8	C
	Alexander Street and Cajalco Road	18.5	B	17.7	B	27.2	C	24.1	C	25.8	C	18.7	B	19.4	B	15.1	B
	Clark Street and Cajalco Road	30.7	C	38.5	D	13.7	B	17.3	B	13.1	B	18.0	B	26.3	C	42.5	D
	Cajalco Road and Harvill Avenue	37.4	D	38.3	D	35.3	D	40.1	D	37.9	D	35.7	D	46.1	D	41.2	D
	Cajalco Road and I-215 southbound ramps	21.3	C	24.8	C	17.1	B	16.3	B	14.7	B	13.6	B	18.7	B	20.0	B
	Cajalco Road and I-215 northbound ramps	19.6	B	24.5	C	15.8	B	17.4	B	15.4	B	17.3	B	20.3	C	23.6	C
Weirick Road	Weirick Road and Knabe Road	39.5	D	31.1	C	26.7	C	28.7	C	26.7	C	28.7	C	26.7	C	28.9	C
	Weirick Road and I-15 southbound ramps	22.6	C	16.2	B	22.1	C	16.8	B	22.1	C	16.8	B	22.1	C	16.8	B
	Weirick Road and I-15 northbound ramps	9.4	A	11.0	B	9.3	A	11.3	B	9.3	A	11.3	B	9.3	A	11.3	B
	Weirick Road and Temescal Canyon Road	22.2	C	29.3	C	22.1	C	29.2	C	22.1	C	29.2	C	22.1	C	29.2	C
Temescal Canyon Road	Temescal Canyon Road and Lawson Drive	20.4	C	18.8	B	20.4	C	18.8	B	20.4	C	18.8	B	20.4	C	18.8	B
	Temescal Canyon Road and I-15 southbound ramps	15.5	B	38.4	D	15.5	B	38.8	D	15.5	B	38.8	D	15.5	B	38.8	D
	Temescal Canyon Road and I-15 northbound ramps	22.5	C	24.9	C	22.5	C	24.9	C	22.5	C	24.9	C	22.5	C	24.9	C
Alessandro Boulevard	Alessandro Boulevard and Meridian Parkway	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**	>80.0	**F**
	Alessandro Boulevard and I-215 southbound ramps	61.4	E	>80.0	**F**	39.8	D	>80.0	**F**	38.4	D	>80.0	**F**	>80.0	**F**	>80.0	**F**
	Alessandro Boulevard and I-215 northbound ramps	53.5	D	>80.0	**F**	50.9	D	>80.0	**F**	51.7	D	>80.0	**F**	>80.0	**F**	>80.0	**F**
	Alessandro Boulevard and Old I-215	74.8	E	>80.0	**F**	51.7	D	>80.0	**F**	50.5	D	>80.0	**F**	>80.0	**F**	>80.0	**F**
Cactus Avenue	Cactus Avenue and Innovation Drive	29.9	C	>80.0	**F**	52.2	D	>80.0	**F**	53.7	D	>80.0	**F**	30.8	C	35.8	D
	Cactus Avenue and I-215 southbound ramps	17.4	B	22.4	C	17.7	B	18.2	B	17.4	B	18.2	B	17.4	B	19.9	B
	Cactus Avenue and I-215 northbound ramps	26.6	C	33.7	C	27.4	C	53.6	D	27.9	C	54.1	D	28.2	C	52.5	D
	Cactus Avenue and Ellsworth Street	43.5	D	38.7	D	39.8	D	37.2	D	39.9	D	37.3	D	40.1	D	36.0	D
Van Buren Boulevard	Van Buren Boulevard and Meridian Parkway	27.2	C	63.8	E	29.4	C	23.2	C	30.6	C	24.5	C	28.9	C	77.6	E
	Van Buren Boulevard and I-215 southbound ramps	12.6	B	14.6	B	12.3	B	16.9	B	13.0	B	17.7	B	12.4	B	14.0	B
	Van Buren Boulevard and I-215 northbound ramps	21.5	C	15.0	B	31.1	C	20.0	B	20.1	C	20.4	C	25.3	C	24.7	C

Table 3.6.L Intersection Peak-Hour LOS for Horizon Year 2040 Conditions

Arterial	Intersection	Horizon Year 2040 No Build				Horizon Year 2040 Alternative 4 Modified				Horizon Year 2040 Alternative 5 Modified				Horizon Year 2040 Alternative 9 Modified			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS	Delay (sec)	LOS
Harley Knox Boulevard	Harley Knox Boulevard and Harvill Avenue	20.8	C	21.8	C	21.1	C	23.2	C	21.1	C	23.0	C	21.3	C	24.5	C
	Harley Knox Boulevard and I-215 southbound ramps	19.6	B	48.8	D	15.2	B	18.6	B	15.7	B	19.1	B	17.0	B	20.9	C
	Harley Knox Boulevard and I-215 northbound ramps	18.5	B	14.9	B	15.1	B	17.3	B	16.1	B	18.1	B	19.6	B	16.3	B
	Harley Knox Boulevard and Western Way	18.7	B	12.2	B	8.7	A	8.8	A	8.7	A	9.0	A	10.1	B	10.9	B
Placentia Avenue	Placentia Avenue and Harvill Avenue	36.6	D	38.7	D	30.8	C	42.0	D	33.1	C	36.9	D	35.3	D	41.5	D
	Placentia Avenue and I-215 southbound ramps	-	-	-	-	14.6	B	15.5	B	17.7	B	18.9	B	15.5	B	17.2	B
	Placentia Avenue and I-215 northbound ramps	-	-	-	-	17.9	B	19.3	B	15.8	B	17.1	B	15.7	B	17.4	B
	Placentia Avenue and East Frontage Road	18.5	B	18.3	B	25.6	C	23.6	C	9.7	A	8.6	A	8.6	A	6.6	A
Nuevo Road	Nuevo Road and A Street	17.4	B	23.1	C	20.0	B	22.5	C	18.0	B	17.3	B	19.5	B	21.3	C
	Nuevo Road and I-215 southbound ramps	24.5	C	24.0	C	30.4	C	27.5	C	29.6	C	24.3	C	20.3	C	20.6	C
	Nuevo Road and I-215 northbound ramps	8.3	A	15.1	B	30.9	C	10.3	B	39.4	D	10.2	B	8.4	A	6.7	A
	Nuevo Road and Old Nuevo Road	42.8	D	38.4	D	34.7	C	38.3	D	35.5	D	40.8	D	33.5	C	39.3	D

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Delay >80 – Exceeds 80 seconds
I-15 = Interstate 15
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LOS = Level of Service
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sec= seconds
SR-79 = State Route 79
- = Not Applicable

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Most of the freeways, ramps, and intersections within the traffic study area are expected to operate at acceptable LOS in the horizon year of 2040 for all of the MCP Build Alternatives and design variations. The exceptions are discussed below.

- The study area interchanges on I-215 are expected to experience unsatisfactory LOS conditions in the horizon year of 2040 for the No Build and all of the Build Alternatives and design variations. The project does not cause increases in traffic that would exceed the impact thresholds discussed in Section 3.6.2. Therefore, there are no adverse traffic impacts caused by the project at these locations. In the No Build Alternative, all the freeway interchanges, with the exception of the D Street interchange, would have one or more ramps operating at LOS F. Alternatives 4 Modified or 5 Modified would improve the operation of the ramps at the Cajalco Road/Ramona Expressway interchange, but would result in LOS F conditions at the D Street interchange. Alternative 9 Modified would have the greatest improvement in interchange operation by improving the interchanges at MCP/Placentia Avenue and Cajalco Road/Ramona Expressway.
- Freeway segments on I-15 between SR-91 and Temescal Canyon Road are forecast to operate at LOS F in the No Build Alternative and under all the Build Alternatives. However, the project does not cause increases in traffic that would exceed the impact thresholds discussed in Section 3.6.2.
- Segments of I-215 north of MCP would operate at LOS F in the No Build Alternative and under all the Build Alternatives. The project is forecast to add traffic to I-215 north of the I-215/MCP interchange and reduce traffic south of the I-215/MCP interchange, as compared to the No Build Alternative. The MCP project includes the addition of one mainline lane in each direction along I-215 from Nuevo Road to Van Buren Boulevard. The project does not cause increases in traffic that would exceed the impact thresholds discussed in Section 3.6.2.
- The intersections of Magnolia Avenue with El Sobrante Road, the I-15 southbound ramps, and El Camino Avenue; Alessandro Boulevard with Meridian Parkway, the I-215 southbound ramps, I-215 northbound ramps, and Old I-215; and Cajalco Road with Temescal Canyon Road are expected to experience unsatisfactory LOS conditions under the No Build and Build Alternatives in 2040. However, the project does not cause increases in traffic that would exceed the impact thresholds discussed in Section 3.6.2. Therefore, there are no adverse traffic impacts caused by the MCP project at these locations.
- The intersection of Van Buren Boulevard and Meridian Parkway is expected to experience LOS E in the No Build Alternative in 2040. For Alternatives 4

Modified and 5 Modified (and all design variations associated with these alternatives), the intersection would operate at LOS C. For Alternative 9 Modified (and all design variations associated with this alternative), the intersection would operate at LOS E. However, there is not a substantial increase in LOS or delay with addition of the project compared to the No Build Alternative.

- At the intersection of Alessandro Boulevard and the I-215 southbound ramps under Alternative 4 Modified and Alternative 5 Modified, LOS F conditions are expected in the p.m. peak hour. However, p.m. peak-hour volumes are expected to decrease with the MCP project as compared to the No Build condition. For Alternative 9 Modified, LOS F conditions are expected in both the a.m. and p.m. hours. There is not a substantial increase in traffic at this intersection with the addition of the MCP project as compared to the No Build Alternative.
- At the intersection of Alessandro Boulevard and the I-215 northbound ramps with Alternative 4 Modified and Alternative 5 Modified, LOS F conditions are expected in the p.m. peak hour. However, p.m. peak-hour volumes are expected to decrease with the MCP project as compared to the No Build condition. For Alternative 9 Modified, LOS F conditions are expected in both the a.m. and p.m. peak hours. There is not a substantial increase in traffic at this intersection with the addition of the MCP project as compared to the No Build Alternative.
- The LOS at the intersections of Van Buren Boulevard with the I-215 southbound and northbound ramps are expected to be satisfactory for 2040 Build conditions with Alternative 4 Modified, Alternative 5 Modified, and Alternative 9 Modified.
- At the intersection of Alessandro Boulevard/Sycamore Canyon Road/Meridian Parkway, with Alternative 4 Modified and Alternative 5 Modified, LOS F conditions are expected in both the a.m. and p.m. peak hours. However, a.m. and p.m. peak-hour volumes are expected to decrease with the MCP project as compared to the No Build condition. For Alternative 9 Modified, LOS F conditions are expected in both the a.m. and p.m. peak hours. There is not a substantial increase in traffic with the addition of the MCP project as compared to the No Build Alternative.
- For all the locations described above, project-related direct and cumulative traffic impacts are not considered adverse. In the case of direct impacts, the project traffic impacts are not adverse because the project traffic by itself would not cause LOS F conditions. In the case of cumulative impacts, a traffic increase of less than two percent is not considered adverse. If the project were to increase traffic by more than two percent, identification of mitigation measures and an analysis of fair share contribution by the project would be appropriate.

Intersection/Interchange Design

Intersections and interchanges constructed as part of the MCP project will be designed to accommodate large trucks with wide-turning radii by utilizing the appropriate design vehicle for the type of roadway under consideration. For freeway ramp intersections, the Surface Transportation Assistance Act (STAA) Design Vehicle 50-Foot Radius was used. For local roadways, the California Legal Design Vehicle 50-Foot Radius was used.

Local Circulation and Access

Local circulation will also be permanently impacted by implementation of the MCP project. Appendix I, Supplemental Chapter 2 Attachments, Attachment G of this EIR/EIS, lists the types of road modifications that will result from the MCP project. The road modifications mostly include cul-de-sacs of existing through streets, widening and/or realigning of local streets, some road closures, and realigning interchanges. These roadway modifications may cause redistribution of traffic within the study area. The redistribution of traffic is reflected in the analyses of the various Build Alternatives presented in Tables 3.6-G through 3.6-L.

Alternative 4 Modified, Alternative 5 Modified, and Alternative 9 Modified would result in the permanent removal of the connection of Davis Road and Hansen Avenue to Ramona Expressway in the vicinity of the San Jacinto Wildlife Area. However, the MCP Build Alternatives would not result in long-term traffic circulation or access impacts on the San Jacinto Wildlife Area because access to this area would be maintained in the long term during operation of the MCP project. Ramona Expressway in this area would be replaced by the four- to six- lane MCP facility with controlled access limited to interchanges only. The proposed access point for the San Jacinto Wildlife Area in this area would be via the service interchange on the MCP facility at Reservoir Road. This would not result in long-term traffic impacts because although access from Ramona Expressway to Davis Road, or Hansen Road to Davis Road would no longer be provided, access to the San Jacinto Wildlife Area would be available via Reservoir Road, crossing over the MCP facility (from the south side to the north side), or by exiting the MCP facility at Reservoir Road and proceeding north to an east/west road connecting to Davis Road. The east/west road may be an extension of Marvin Road or some other east/west road constructed as the area is built out according to the adopted Riverside County General Plan Land Use and Circulation Elements.

Bicycle and Pedestrian Facilities

As part of the MCP project, RCTC will provide facilities for bicycles and pedestrians in locations where local streets will cross the MCP. These facilities will be designed to be consistent with the applicable local jurisdiction's General Plan Circulation Element. In addition, existing and planned bike routes and trails are being considered in the design of the MCP project, and provisions are being made so that bike routes and trails can use the planned overcrossings and undercrossings to cross the MCP project where existing and/or planned features exist. Table 3.1.D, provided early in Section 3.1, Land Use, identifies trails and bikeways within the MCP limits of improvements that would be impacted by the MCP Build Alternatives, as well as MCP project features that would minimize permanent impacts to the trails and provide connectivity across the MCP freeway (e.g., service interchanges, overcrossings, and undercrossings). Table 3.1.C also identifies applicable measures for trail impacts that would reduce impacts. All pedestrian facilities will be designed to meet or exceed ADA requirements.

Transit Facilities

The existing Perris Multimodal Facility (downtown Perris) and the planned Riverside Hunter Park, Moreno Valley/March Field, and Perris Stations will all be on the PVL. An additional station near the I-215/Cajalco Road interchange is proposed to be implemented on the PVL in the future. The existing Perris Multimodal Facility and the planned South Perris Station transit facilities are south of the alignments of all three MCP Build Alternatives and on the west side of I-215. Travelers on the MCP would likely use the MCP westbound to southbound I-215 to the 4th Street exit to reach the Downtown Perris Station and further southbound on I-215 to the 74/East-Hemet exit to reach the South Perris Station. The PVL alignment itself is on the west side of I-215 and would not be affected by any of the MCP Build Alternatives. The Riverside Hunter Park and Moreno Valley/March Field Station are north of the alignments of the MCP Build Alternatives.

Regional Travel Demand

In the regional travel forecasting model that was used in analyzing the traffic impacts of the MCP project, the future land use forecasts were the same with and without the project. SCAG develops its land use forecasts through analysis of regional trends that do not change when transportation facilities are added or subtracted from the roadway network. Therefore, the overall land use and trip generation at a regional level will remain the same, and no new vehicle trip generation will occur.

Although the overall land use and trip generation would remain the same, vehicle travel times through the MCP corridor would be shortened as a result of construction of the project. Table 3.6.M compares the travel times from I-215 to SR-79, a distance of approximately 14 miles, for the No Build and each Build Alternative. As shown in

Table 3.6.M Vehicle Travel Time Between I-215 and SR-79

Alternative	Travel Time
2040 No Build	44 minutes
2040 Alternative 4 Modified	16 minutes
2040 Alternative 5 Modified	15 minutes
2040 Alternative 9 Modified	14 minutes

Source: *Traffic Technical Report* (2012).
I-215 = Interstate 215
SR-79 = State Route 79

the table, the travel time for each alternative would be approximately one third of the travel time for the No Build Alternative.

No Build Alternatives

Under Alternative 1A, there would be no improvements to east-west travel on Ramona Expressway, but planned and approved improvements would be implemented. The Horizon Year (2040) traffic conditions described in Section 3.6.2.1, Baseline Conditions, and Tables 3.6.A, 3.6.B, 3.6.C, and 3.6.D reflect traffic conditions with the future No Build Alternative.

Alternative 1B represents 2040 traffic demand on the planned street network; however, unlike Alternative 1A, Alternative 1B includes improvements to Ramona Expressway as shown in the Riverside County General Plan.

Under Alternative 1B, the freeway mainlines and interchanges, as well as the intersections in the vicinity of the freeway mainlines, would not be impacted; therefore, the LOS and delay conditions under Alternative 1B for freeway mainline, ramp, and intersections in the vicinity of the freeway would be the same as Alternative 1A. However, the intersections between I-215/SR-79, as well as intersections in the vicinity of I-215 from Harley Knox Boulevard to Nuevo Road, would be affected under Alternative 1B since improvements to Ramona Expressway would be implemented. Table 3.6.N describes the LOS for the intersections between I-215/SR-79 under Alternative 1B in 2040. While some intersections would improve in LOS, there are still two intersections along Ramona Expressway that would be below the acceptable LOS standards.

Table 3.6.N Alternative 1B 2040 Intersection Capacity Analysis: I-215 Area and I-215 to SR-79

Intersection	AM Peak Hour		PM Peak Hour	
	LOS	Average Delay (sec)	LOS	Average Delay (sec)
I-215 Area				
Harley Knox Boulevard and Harvill Avenue	C	20.8	C	21.8
Harley Knox Boulevard and I-215 southbound ramps	B	19.6	D	48.8
Harley Knox Boulevard and I-215 northbound ramps	B	18.5	B	14.9
Harley Knox Boulevard and Western Way	B	18.7	B	12.2
Cajalco Road and Harvill Avenue	D	37.4	D	38.3
Cajalco Road and I-215 southbound ramps	C	21.3	C	24.8
Cajalco Road and I-215 northbound ramps	B	19.6	C	24.5
Cajalco Road and Webster Avenue	C	31.5	D	42.4
Placentia Avenue and Harvill Avenue	D	36.6	D	38.7
Placentia Avenue and East Frontage Road	B	18.5	B	18.3
Nuevo Road and A Street	B	17.4	C	23.1
Nuevo Road and I-215 southbound ramps	C	24.5	C	24.0
Nuevo Road and I-215 northbound ramps	A	8.3	B	15.1
Nuevo Road and Old Nuevo Road	D	42.8	D	38.4
I-215 to SR-79				
Perris Boulevard and Markham Street	B	20.0	C	20.9
Perris Boulevard and Ramona Expressway	D	41.5	D	42.2
Perris Boulevard and Morgan Street	C	28.0	C	29.8
Redlands Avenue and Ramona Expressway	D	50.0	E	**71.8**
Evans Road and Marbella Gate	A	2.9	A	2.0
Evans Road and Ramona Expressway	E	**62.5**	E	**58.3**
Evans Road and Morgan Street	A	8.6	A	7.6
Bernasconi Road and New Street	B	14.4	B	15.4
Bernasconi Road and Ramona Expressway	D	37.1	D	44.7
Bernasconi Road and Orange Avenue	C	26.7	C	32.3
Reservoir Avenue and Martin Street	B	17.2	B	16.2
Reservoir Avenue and Ramona Expressway	C	31.5	C	33.0
Reservoir Avenue and 9th Street	B	14.4	B	13.9
Town Center Boulevard and Frontage Road	B	10.8	B	10.3
Town Center Boulevard and Ramona Expressway	D	48.7	D	43.5
Town Center Boulevard and 5th Street	C	28.1	C	30.2
Park Center Boulevard and Marvin Road	C	31.7	C	29.4
Park Center Boulevard and Ramona Expressway	C	32.6	C	31.3
Park Center Boulevard and New Street	A	6.9	A	7.4
Warren Road and Ramona Expressway	D	39.4	C	32.7
Warren Road and Record Road	B	11.7	B	12.5
Gilman Springs Road and SR-79 southbound ramps	B	17.7	C	22.1
Gilman Springs Road and SR-79 northbound ramps	C	28.6	C	27.0
Ramona Expressway and SR-79 southbound ramps	C	28.0	C	29.7
Ramona Expressway and SR-79 northbound ramps	A	7.1	B	15.3
Sanderson Avenue and SR-79 westbound ramps	C	20.1	C	24.8
Sanderson Avenue and SR-79 eastbound ramps	A	8.7	A	9.8
Sanderson Avenue and Cottonwood Avenue	D	38.0	D	37.7

Source: *Traffic Technical Report* (2012).
Note: **Bold** represents a deficient intersection defined as LOS F.
I-215 = Interstate 215
LOS = level of service
sec = seconds
SR-79 = State Route 79

3.6.3.2 Temporary Impacts

Build Alternatives

During construction, the MCP project would result in temporary impacts to traffic circulation due to traffic diversions resulting from local road closures and temporary ramp and mainline lane closures. Vehicles traveling for purposes related to construction including trucks hauling borrow material to the site would also temporarily increase traffic levels above the typical levels that would exist before and after the construction period. As is typical with major highway improvements, many of the details of the construction process including the construction phasing and the timing and phasing of street and ramp closures and detours will be determined in the final design phase of the project during which specific construction staging plans are developed.

Construction truck traffic will travel mostly within the MCP right of way to minimize truck traffic on local streets. There will be access points to the construction site where the proposed MCP crosses major local roadways.

Based on known locations for materials such as concrete, asphalt, borrow material, and disposal of earthwork, the following are the roadways in the MCP study area that may experience increased truck traffic as a result of the construction of MCP:

- I-215 from State Route 60 (SR-60) to SR-74
- Perris Boulevard from Alessandro Boulevard to 4th Street
- Ramona Expressway from I-215 to State Street
- Cajalco Road from I-15 to I-215
- Placentia Avenue from I-215 to Redlands Avenue
- Redlands Avenue from Harley Knox to Placentia Avenue
- Esplanade from State Street to Sanderson Avenue
- Sanderson Avenue from Esplanade to Ramona Expressway
- SR-79 from SR-60 to Ramona Expressway

The locations for materials to be used in construction will be confirmed, and exact routes for construction truck traffic will be determined during the final design phase of the project. This information will be coordinated with local agencies specifically–Caltrans, the City of Perris, the County of Riverside, and the City of San Jacinto, to use designated truck routes and to ensure best possible routes for minimizing impacts to the local street system. RCTC will also take into consideration traffic LOS, adequacy of roadway pavement sections, and the locations of sensitive receptors for

air quality consistent with Mitigation Measure AQ-3, when determining the best possible routes for construction truck traffic, as well as traffic detours.

As discussed earlier, a *Traffic Management Plan* (TMP) will be implemented for the MCP project in order to construct the project in a cost-efficient and timely manner with minimal interference to the traveling public. This is a typical requirement for major highway improvement projects, and one of the purposes of the TMP is to reduce the traffic impacts of the project to acceptable levels below the criteria for adverse impacts described in Section 3.6.2, Affected Environment. Where roadway closures are proposed, alternative routes of travel will be designated. Where lane closures are required for construction, the hours of operation of the lane closures will be outside of peak travel times to avoid substantial delays to travelers.

No Build Alternatives

Under the MCP No Build Alternatives, the temporary traffic circulation impacts due to construction of the MCP Build Alternatives would not occur for the MCP project. Temporary impacts of the MCP Build Alternatives as discussed above would not occur. Temporary traffic circulation impacts are expected to be more limited for the other planned transportation improvement projects within the MCP study area. With the exception of the SR-79 Realignment Project, these other projects are more limited in scope than the MCP project.

3.6.3.3 Phasing

The MCP project is proposed to be constructed in a single phase, with an opening year of 2020. However, as discussed in Section 2.3.2.17, to be responsive to public comment and should funding not be available to construct the project at one time, RCTC has developed a potential phasing plan for construction that could provide early benefits to the traveling public by constructing the project in phases. Therefore, should funding not be available to construct the project at one time, the initial phase of the MCP project is anticipated to be built by 2020, a subsequent phase would be completed by 2030, and the full project would be completed by 2040.

The initial phase of the project that would be built by 2020 would include the following improvements: (1) an interchange at I-215/Placentia Avenue; (2) one additional lane in each direction on I-215 from Nuevo Road to Van Buren Boulevard; and (3) a four-lane arterial from 0.5 mile west of Bernasconi Road to 0.5 mile west of Reservoir Avenue, including an intersection with Bernasconi Road, and a four-lane arterial roadway from 0.5 mile west of Reservoir Avenue to 0.5 mile west of Warren

Road, including service interchanges at Reservoir Avenue, Town Center Boulevard, and Park Center Boulevard. This initial phase is common to Alternatives 4 Modified, 5 Modified, and 9 Modified, so any of the MCP Build Alternatives could be implemented following completion of the initial phase. The first phase of the project was analyzed in the 2020 analysis shown in Tables 3.6-G, 3.6-H, and 3.6-I. As discussed in Section 3.6.3.1, the project is expected to add traffic to I-215 north of the I-215/MCP interchange and reduce traffic south of the I-215/MCP interchange, as compared to the No Build Alternative. However, the MCP project includes the addition of one mainline lane in each direction of traffic along I-215 from Nuevo Road to Van Buren Boulevard, which would result in satisfactory operation of the freeway mainline. In addition, the MCP project would improve all study area intersections except Magnolia Avenue/El Sobrante Road, Magnolia Avenue/I-15 southbound ramp, and Alessandro Boulevard/Meridian Parkway. Traffic levels with the first phase of the project would not be substantially higher than traffic levels for the No Build alternative at these locations. Therefore, there are no adverse traffic conditions caused by the project at these intersections.

The second phase of the project would be built by 2030 and would include (1) the MCP system interchange at I-215 that would include only the southbound I-215 to eastbound MCP and the westbound MCP to northbound I-215 ramps; (2) a four-lane MCP freeway from I-215 to west of Bernasconi Road, including service interchanges at Perris Boulevard or Redlands Avenue, Evans Avenue, Ramona Expressway/ Antelope Road, and Bernasconi Road (locations differ by MCP Build Alternative); and (3) a four-lane MCP freeway from west of Warren Road to SR-79, including a service interchange at Warren Road, an intersection with Sanderson Avenue, and a service interchange with SR-79. At SR-79, the freeway-to-freeway ramps that are included in the ultimate project would not be provided in this phase, but access would be provided from the MCP to SR-79 through the service interchange with signalized control for the MCP facility.

The final phase of the project would be built by 2040 and would include (1) the addition of northbound I-215 to eastbound MCP and the westbound MCP to southbound I-215 ramps at the I-215/MCP interchange; (2) widening of the MCP facility to a six-lane freeway from I-215 to SR-79; and (3) a system interchange at SR-79 and MCP. The final phase of the project was analyzed in the 2040 analysis shown in Tables 3.6-J, 3.6-K, and 3.6-L. As discussed in Section 3.6.3.1, freeway segments on I-15 between SR-91 and Temescal Canyon Road are forecast to operate in 2040 at LOS F in the No Build Alternative and all Build Alternatives. Segments of

I-215 north of MCP would operate at LOS F in the No Build Alternative and in all Build Alternatives. The project is expected to add traffic to I-215 north of the I-215/ MCP interchange and reduce traffic south of the I-215/MCP interchange, as compared to the No Build Alternative. However, the MCP project includes the addition of one mainline lane in each direction of traffic along I-215 from Nuevo Road to Van Buren Boulevard.

3.6.4 Avoidance, Minimization, and/or Mitigation Measures

As discussed in Section 3.6.3.1, Permanent Impacts, the MCP Build Alternatives will not cause a substantial increase in traffic in relation to the existing and projected traffic load and capacity of the street system in the study area. Therefore no avoidance, minimization, or mitigation measures are required for permanent traffic impacts.

As discussed in Section 3.6.3.2, Temporary Impacts, the MCP project would result in temporary impacts to traffic during project construction. To minimize construction-related traffic impacts, the following mitigation measure will be implemented and would apply to all MCP Build Alternatives.

TR-1 **Traffic Management Plan.** During final design, the Riverside County Transportation Commission (RCTC) Project Engineer shall prepare the Final Traffic Management Plan (TMP), which will be based on the Preliminary TMP developed for the Project Report, to address specific short-term traffic impacts during construction of the project. The objectives of the Final TMP are to:

- Maintain traffic safety during construction
- Effectively maintain an acceptable level of traffic flow throughout the transportation system during construction
- Minimize traffic delays and facilitate reduction of overall duration of construction activities
- Minimize detours and impacts to pedestrians and bicyclists
- Foster public awareness of the project and related impacts
- Achieve public acceptance of construction of the project and the Final TMP measures.

The RCTC Project Engineer shall submit the Final TMP to the California Department of Transportation (Caltrans) for review and

approval during final design and prior to any construction activities affecting Interstate 215 (I-215) or State Route 79 (SR-79). The Final TMP shall also be reviewed with the local jurisdictions (Cities of San Jacinto and Perris, and the County of Riverside), which would or could experience short-term traffic impacts during project construction.

The Preliminary TMP contains the following elements intended to reduce traveler delay and enhance traveler safety. These elements shall be refined during final design and incorporated in the Final TMP for implementation during project construction.

- **Public Information/Public Awareness Campaign (PAC).** The primary goal of the PAC is to educate motorists, business owners/ operators, residents, elected officials, and government agencies about construction activities and associated impacts. The PAC is an important tool for reaching target audiences with important construction project information and shall include, but not be limited to:
  - Rideshare information
  - Brochures and mailers
  - Media releases
  - Paid advertising
  - Public meetings
  - Broadcast fax and email services
  - Telephone hotlines
  - Notification to targeted groups
  - Commercial traffic reporters/feeds
  - Project website
  - Visual information
  - Local cable television and news
  - Internet postings
  - Weekly traffic alerts
- **Traveler Information Strategies.** The effective implementation of a traveler information system during construction is crucial for enabling motorists to make informed decisions about their travel plans and options with real-time traffic information. That real-time traffic information shall include information on lane closures, detours, delays, access to adjacent land uses, “businesses are open”

signing, and other signing and information to assist travelers in navigating through and in construction areas. Key components of this system shall include, but not be limited to:

- Fixed changeable message signs
- Portable changeable message signs
- Ground-mounted signs
- Automated work zone information systems
- Highway advisory radio
- Lane closure website
- Department highway information network
- Bicycle and pedestrian information
- Commute Smart website

- **Incident Management.** Effective incident management will ensure that incidents in construction areas are cleared quickly and do not lead to substantial delays for the traveling public through work zones. Incident management shall include, but is not limited to:
  - Construction Zone Enhanced Enforcement Program (COZEEP)
  - Freeway service patrol for construction
  - Traffic surveillance stations
  - Transportation Management Center Unit 370
  - Traffic management team
  - Towing services
- **Construction Strategies.** The Final TMP shall include procedures to lessen the effect of typical construction activities and shall include, but not be limited to, consideration of the following:
  - Conflicts with other projects and special events
  - Construction staging alternatives
  - Mainline lane closures
  - Local road closures
  - Ramp/connector closures
  - Pedestrian and bicycle detours and facility closures
  - Traffic control improvements
  - Coordination with other projects
  - Project phasing
  - Traffic screens

  - Truck traffic restrictions
  - Haul routes
- **TMP During Construction.** During site preparation, disturbance, grading, and construction, the RCTC Resident Engineer shall require the Construction Contractor to implement the measure in the Final TMP as applicable in each construction area.
- **Public Awareness Campaign.** Prior to and during all site preparation, disturbance, grading, and construction, the RCTC Resident Engineer and the Construction Contractor shall coordinate with RCTC's Public Information staff to provide information regarding current and upcoming construction, detours, street closures, etc., that will then be transmitted by the Public Information staff to the general public.

As discussed in Section 3.6.3.1, Permanent Impacts, the MCP project would permanently modify access between Ramona Expressway and the San Jacinto Wildlife Area. The following measure would apply if at the time the construction of the MCP in this area is initiated, an east/west road connecting Reservoir Road to Davis Road consistent with the Riverside County General Plan has not been built by others.

TR-2 **Local Road Access.** If at the time the construction of the MCP project in the vicinity of Davis Road and Hansen Road (along the Ramona Expressway) in this area is initiated, the east/west road connecting Reservoir Road to Davis Road has not been built by others, the MCP project would be responsible for providing access to Davis Road so that no area is left without access during the construction and operation of the MCP project. Although it is expected that planned local circulation elements in this area would be environmentally cleared, designed, and constructed by others prior to the initiation of the MCP construction in this area, if that is not the case, then the environmental clearance, design, and construction of improvements needed to maintain access to Davis Road would be conducted by RCTC as part of the final design and initiation of construction along the MCP project along that segment of Ramona Expressway.

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